March
1931

# AMERICAN GAS ASSOCIATION MONTHLY

## President Hoover Turns on Natural Gas in Washington, D. C.

Utility Relations
CLIFFORD E. PAIGE

Meeting Competition
T. F. KENNEDY

Gas Scores as Best Fuel for Cooking
J. B. NEALEY

Selling Industrial Gas by Advertising
JOHN F. WEEDON

The A. G. A. Seal of Approval, Its Design and Use
R. M. CONNER

A. G. A. Research In Burning Gas with Pre-Heated Air
JOHN CORSIGLIA

Thirty-five McCarter Medals and Other Awards Presented to Large Group

AMERICAN GAS ASSOCIATION · LIGHT · HEAT · POWER · INCORPORATED · 1919

# "He Is Becoming Downright Polite"

*(Editorial from Gas Age-Record)*

FIFTY-TWO group leaders who are assisting in the direction of the Course in Employee-Customer Relations conducted by the Consolidated Gas Company of New York were guests at a dinner recently as a testimonial to the success of their work. Executives of the utility and affiliated companies attended.

Fourteen of the group leaders spoke briefly on the subject, "What We Are Accomplishing Through Our Group Conferences," and each presented specific instances to show how the course is helping the employee to achieve the frequently expressed ideal of the company: "Prompt, efficient, and courteous service at all times."

Some of the remarks are illuminating and amusing. Typical abstracts follow:

**For years a number of our old-timers have been employing some of the methods described in this course. At first, as in most everything new, the attitude of some of the men was not so "hot," some of them had to be "shown." However, they are rapidly falling in line, as is evident by the fact that they are now courtesy-conscious and are frequently discussing contact problems.**

**A few weeks ago I met the wife of one of our fitters. After conversing for a while, she said: "Say, what are you doing to Harry down at the gas company?" I said, "What do you mean?" She said, "Well, I know you are having some kind of a course as I see him reading some books and writing out some papers, but he is becoming downright polite. He is very careful in his speech, and the other night he came home with a new dictionary."**

**Heretofore when an order came out for some chronic kicker, a man felt lucky when some other fellow got the order to execute. Now the men ask for these hard ones and do their utmost to make friends of these kickers.**

**The successful contact employee's job is a dignified one. They cannot help but feel the responsibility and dignity conferred upon him or her to be privileged to represent this large company, on the district or on the sales floor.**

**Poor human service has a greater effect on a customer than physical service, because we are all human, and in our daily lives we do at times solicit that feeling of understanding from our neighbor or friend that helps us in our travels through life, proving the old adage, "Do unto others as you would have them do unto you." What more interesting study is there in the world today than human endeavor, human interest, and the psychology of human nature?**

The American Gas Association course should be of great value to every gas company in the country. The quotations above indicate the trend of employee thought in one situation. Equally successful results can be obtained by other utilities.

Complete information from K. R. Boyes, American Gas Association, 420 Lexington Ave., New York, N. Y.

# AMERICAN GAS ASSOCIATION MONTHLY

**Allyn B. Tunis, Editor**



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VOLUME XIII · MARCH, 1931 · NUMBER 3


## CONTENTS


| | PAGE |
|---|---|
| Our Own Who's Who—John G. Learned | 98 |
| President Hoover Turns on Natural Gas in Washington, D. C. | 99 |
| Utility Relations<br>CLIFFORD E. PAIGE | 101 |
| New England Gas Industry Sets High Record<br>ALEXANDER FORWARD | 102 |
| The A. G. A. Seal of Approval, Its Design and Use<br>R. M. CONNER | 104 |
| The Human Side of Serving One Million Human Beings<br>HOWARD F. WEEKS | 106 |
| Consumers' Gas Company Opens New Branch in Toronto | 109 |
| Gas Companies Invited to Compete for Insull Award | 110 |
| Relationship Between Central House Heating and Fireplace Heating with Gas<br>R. F. CLEARY | 111 |
| Gas Scores as Best Fuel for Cooking<br>J. B. NEALEY | 114 |
| Success Marks Premier of A. G. A. Talkie | 116 |
| A. G. A. Research in Burning Gas with Pre-Heated Air<br>JOHN CORSIGLIA | 118 |
| Thirty-five McCarter Medals and Other Awards Presented to Large Group | 120 |
| Tampa Gas Company Dedicates New Building | 122 |
| Purdue Students Hear Story of Gas | 123 |
| Affiliated Association Activities | 124 |
| Convention Calendar | 125 |
| Film to Tell Story of Natural Gas at Accounting Conference | 128 |
| Selling Industrial Gas by Advertising<br>JOHN F. WEEDON | 129 |
| Distribution Conference Opens April 8 | 132 |
| Natural Gas Convention Keynote to be "Gas, Its Place in Our Time" | 133 |
| Meeting Today's Competition<br>T. F. KENNEDY | 134 |
| Gas Appliance and Equipment Developments | 138 |
| Monthly Summary of Gas Company Statistics<br>PAUL RYAN | 141 |



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# OUR OWN WHO'S WHO

## John G. Learned



JOHN G. LEARNED, vice-president of the Public Service Company of Northern Illinois, Chicago, has been identified with the gas and other utility business for thirty-two years, for twenty-five of which he has been associated with the Public Service Company of Northern Illinois and its predecessor, the North Shore Electric Company. Born in Chicago, he attended the Chicago public schools. In 1902 he graduated from the Chicago Law School, and in the same year was admitted to the Illinois Bar Association, of which he is still a member. Mr. Learned began his utility service in 1898 when he secured a position with the Chicago Telephone Company, which is now the Illinois Bell Telephone Company. He left this company in 1900 to take a position as salesman with the Commonwealth Electric Company, which position he left in 1905 to become contract agent of the North Shore Electric Company. In 1911 he became general contract agent of the Public Service Company of Northern Illinois. He was promoted to the position of assistant to vice-president in charge of sales in 1912 and in 1923 he was made vice-president in charge of sales of the Public Service Company of Northern Illinois. Mr. Learned has for many years actively participated in and sponsored various important committee activities of the American Gas Association. His understanding of the sales problems of the gas and electric utilities and his ability to solve them successfully, together with his ability as a student of human nature and his concern for the welfare of his associates have made him well known throughout the utility field.

AMERICAN
GAS ASSOCIATION
MONTHLY

VOLUME XIII MARCH, 1931 NUMBER 3

# President Hoover Turns on Natural Gas in Washington, D. C.

NATURAL gas has come to Washington.

In a ceremony, brief but colorful, pipe lines of the Columbia Gas & Electric system, extending hundreds of miles from the fields of West Virginia, were connected with those of the Washington Gas Light Company on January 31.

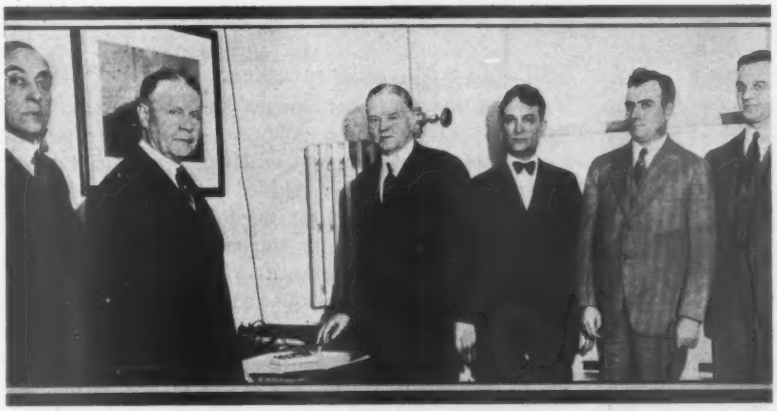
President Hoover himself gave the signal which started the flow of gas into the gas company's East Station on the banks of the Anacostia River.

Shortly before 10 o'clock on the day of the ceremony, George A. G. Wood, president of the gas company; Frank A. Woodhead, vice-president; Walter M. Russell, chief engineer; Wilton J. Lambert, general counsel, and Brigadier-General William E. Horton, assistant counsel, motored to the White House where they were greeted by C. Bascom Slemp, Republican National Committeeman. A group of newspaper photographers were escorted to the telegraph room in the basement. Cameras were set up on tripods as Mr. Wood and the rest of the party entered and stood in line on the left of the door. President Hoover, smiling and apparently forgetful of affairs of State, walked briskly into the room followed by an escort of White House aides.

President Hoover pressed a gold button on a telegraph key-block. Simultaneously a giant valve in the East Station of the gas company opened to admit natural gas for the first time into the Washington plant.

When President Hoover pressed the button in the White House, Dr. Luther H. Reichelderfer, president of the Board of District Commissioners, and George B. Fraser, financial vice-president of the gas company, standing before another group of officials in the East Station, received the signal and turned a ribbon-decorated wheel opening the valve.

*PRESIDENT HOOVER PRESSES A BUTTON WHICH TURNS NATURAL GAS INTO THE NATIONAL CAPITAL'S MAINS*



*In the picture, left to right—C. Bascom Slemp, former secretary to President Coolidge and Republican National Committeeman from Virginia; Brigadier-General William E. Horton, assistant counsel of the Washington Gas Light Company; President Hoover; Wilton J. Lambert, counsel of the company; George A. G. Wood, president of the Washington Gas Light Company, and Edward Reynolds, Jr., vice-president of the Columbia Gas & Electric Company*

Cameras at both points boomed. Reporters took notes.

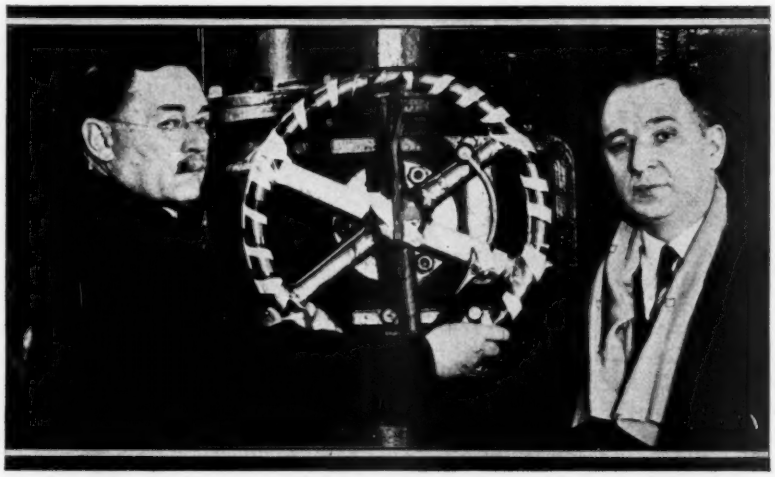
The ceremony introducing natural gas to Washington was over.

For the present, however, the city will see no change. For eighty-three years the Capital has used nothing but manufactured gas and all of the city's appliances and heating systems are adjusted to burn a gas of 600 B.t.u. No general adjustments will be necessary beause it is contemplated to gradually introduce natural gas.

Natural gas will be used in place of crude oil to enrich manufactured gas and bring it up to the 600 B.t.u. required by the District Public Utilities Commission. The amount of natural gas is not expected to exceed 40 per cent for the next few years.

Washington has a plant which, until the arrival of natural gas, was hardly big enough to meet the fast-growing demand. Three extra sets were added to the East Station in 1930 to help handle this situation. Lower rates and a demand created by the acquisition of added territory made this necessary before natural gas lines were completed.

*RELEASING GAS INTO THE WASHINGTON PLANT*



*In the picture—Dr. Luther H. Reichelderfer, president of the Board of District of Columbia Commissioners, turning the valve in the East Station of the Washington Gas Light Company which released the gas into the Washington plant; and George B. Fraser, financial vice-president of the Washington Gas Light Company*

The merger now being considered, and which would enable the gas company to modernize its plant, would consolidate the Washington Gas Light Company and the Georgetown Gas Company. The former owns the latter.

The new management is confident that this legislation in time will pass and that Washington, meanwhile, will be given suitable service with the aid of natural gas.

Since the new management came into the situation in April, 1930, the company has taken rapid strides in reaching out for new business, providing better service, and in general expanding to the point where further business might very soon have overtaxed the plant had not natural gas arrived. One hundred and thirteen miles of mains were laid last year and 3,361 house services installed. Ninety-five miles of gas distributing mains were laid in new territory, giving gas to families who heretofore had been unable to enjoy its use.

And while this expansion program was going on the production of gas as compared to 1929 was mounting month-by-month following rate reduction which it is estimated cut $400,000 from the company's net revenue annually.

Consumption figures for October, November and December revealed an increase of 8 per cent, 15 per cent and 22 per cent, respectively, as compared to the corresponding months of 1929. A gain of 21.8 per cent followed in January of this year, a step-up in figures of 139,464,000 cu.ft. over January of the previous year. Actual figures for January, 1930, and January, 1931, were 640,591,000 and 780,055,000, respectively.

The reduction in rates naturally encouraged the use of gas to some extent, but cognizance must be taken also of the fact that 1,017 house-heating jobs were sold during a single thirty-day period. Sales of gas appliances also showed an increase during the year of more than $500,000—another factor in popularizing the use of gas and contributing to the increased load.

Shortly after natural gas was turned on, Mr. Wood published a statement explaining in full what it would and would not mean to greater Washington of the future. Part of this statement follows:

"There is a tendency for some people to think that because natural gas comes from a hole in the ground it can be had for almost nothing. But expense rises rapidly when gas is transported in underground pipes hundreds of miles under pressure. Natural gas, in itself, will not mean cheaper gas rates.

"Natural gas will not mean a change in the heat content of gas (measured in British thermal units) which is delivered to customers of the Washington Gas Light Company, the Georgetown Gas Company or its subsidiaries. Already this city has changed smoothly, surely, over to the new mixture. No one has seen any difference because, in effect, there is no difference.

"In order to bring gas up to the 600 B.t.u. standard required by the Public Utilities Commission it is necessary to spray the lean gas with expensive crude oil. This is a difficult process which slows up production.

"Natural gas, which has a much higher heat content than manufactured, will be used to replace crude oil in our plant. It will be mixed with manufactured gas."

# Utility Relations*

By Clifford E. Paige
PRESIDENT
American Gas Association

*C. E. Paige*

IF there ever were a time when the interests of gas companies needed the closest kind of co-ordination, that time is now.

We need a telescope to look into outside relations which may be at a distance, a microscope for the relations nearer by, but perhaps more than all, a mirror to examine ourselves.

Many problems are common to almost all gas companies; the solutions have to be varied to meet varying details and unusual local circumstances. We cannot undertake a listing of all the problems affecting everybody, but we expect little difference of opinion with the premise that more than anything else our business needs volume.

My theme is essentially *Sales Volume*. With this thought uppermost, I shall call attention to some of the factors which seem to affect this vital subject.

In very recent times, we have seen again demonstrated the position occupied by our public utilities in the civic and economic structure.

Prices for utility securities moved up prior to 1929, in sympathy with most other issues. Often they led the march. Stocks, in many cases, sold far above their actual values. Utility securities were undoubtedly affected by the same speculative fever. Prices fell, and utility security prices fell in sympathy and often led the decline.

And yet we have this significant phenomenon. Most of the ups and downs were outside of the business itself. Even in the midst of wild speculative orgies—the utility, whose securities might have been the machinery of gambling activity, moved on in its community, selling its product and building its structure for a still greater future development.

During the darker days following the stock market break, when recession in all lines became apparent, when public confidence was severely shaken and when unemployment became a national crisis, again we find the utilities still selling their products, still building toward the future, boldly anticipating construction schedules, actually employing more men than in times when the picture was brighter. It is no wonder that the public utility appears as a bulwark, exercising a steadying and balancing influence on the whole community.

This very stability, which, by the way, is no acicdent, has brought the utility into the limelight. The always present demagogue continues having his day and his say, doing his best to tear down, often the very things which support him. Investigation and inquiry have been going on in all directions, even to the extent of having investigations of investigators.

Then there are those who believe that the utilities have no right to merchandise appliances. Legislation, bearing vitally on this point, has been enacted and that more is pending is indicated.

"The American Public is always fair when it knows the facts." This statement, quoted so often as almost to have lost its origin, may be trite, but it is the conviction and faith of the best minds in the utility business. Who will bring out the facts, if the utilities do not?

No one contends that, except for the demagogue, these various movements and attacks on utility interests are actuated by anything but sincere beliefs that the utility operations are not what they should be. Doubtless there may be cases where utility practices are open to question, but in the vast majority of times, the principle holds that what is bad for its community cannot be good for the utility.

Conventions such as yours are the clearing houses for utility practices, looking always to increased volume of sales, to better service at lower rates.

Let us be more specific. I have referred constantly to the utility in the broader sense because so far the problems mentioned are common to all of them. Our greatest interest is the gas industry and our greatest concern is with those problems more especially applicable to it.

Our desire is for more sales. We consider utility relations of one sort or another essential to this result. Behind utility relations is utility attitude.

As a representative of a utility, what is your attitude toward:

Advertising, individual and collective?

Dealer relations and sales allies?

Association as an opportunity for collective dealing with common problems?

Your attitude will determine your relations, and your relations have a lot to do with the sales you attain.

Advertising is one of the great factors in any form of utility relations. Advertising, in fact, is the definite and legitimate mouthpiece, by which all relations are interpreted. In the gas industry, we have many men of many minds as to how and to what extent it should be undertaken. It is pointed out that the gas industry is at a disadvantage in competing with electric advertising because it does not have the tremendous and highly organized manufacturing enterprises to furnish

*Address before the New England Gas Association Convention, at Boston, Mass., Feb. 4, 1931.

such a splendid background for all its effort.

The electric company may choose what form of advertising to use. it may elect to use entirely institutional or good-will copy. Well it may, when extensive advertising appropriations are bringing to the buying public constantly, page after page of national and local material teaching the value of appliances and the romance of their use.

Years ago, the gas industry agreed that while it lacked some of this support, it was by no means submerged. A great awakening of interest in this matter became apparent. Probably every gas company in the country has doubled its advertising expenditure in ten years or less. The affiliated interests, especially the appliance manufacturers, have done magnificently in the national arena.

Perhaps the outstanding accomplishment has been the regional advertising conducted by your own organization. I am informed that there is among you some difference of opinion as to how this should be continued, if at all. To have a definite opinion requires an exact knowledge of all the circumstances, and it would be indeed presumptuous for an outsider to make suggestions.

It is a fact that what you have done here in New England in cooperative advertising is proved effective by the great approval given the plan by modern advertising agencies. As a by-product, the achievement has been admitted by the entire gas industry in every section of the Country.

There is a new group of homemakers and industrials coming into existence every year—thousands of people who never before had the slightest interest in gas or its possibilities. They must be informed. Again I say, if we ever needed unity and coordination in effort, we need it now.

The power of advertising in the gas business is nebulous, impossible to appraise. Apart from its direct intent to sell more gas are many indirect considerations. The mere presence of copy in a publication implies frankness. It promotes better feeling among dealers, who are not in the gas business but are selling appliances and service, because it shows just where the gas company stands.

The details of any plan may need revision, but I believe that in cooperative effort we will find our greatest strength.

Advertising, in the gas industry, is identified with all sales allies. If you have established a cooperative undertaking in your community, your advertising, as well as your dealers', helps to provide gas consumers with the best appliances to be had. Your advertising helps him to sell and a real mutuality of interest is set up.

The right of a gas company to sell appliances has been questioned. It is doubtful if gas companies would have gone into this field or remained in it if volume of sales of gas could have been attained in any other way. Moreover, the gas company has a very strong interest in seeing that only the best appliances are sold, in order that customers may be assured of complete satisfaction and to keep down the company's maintenance expenses.

The gas company has a peculiar interest in the utilization of sales allies. There are three main factors in the relationship:

1. The public—as represented by the gas consumer.

2. The sales agency, plumber, hardware dealer, or department store.

3. The gas company.

The consumer is interested, always and rightfully, in procuring the most for his money, both in the appliance and in his use of it.

The sales agency depends on profit on merchandise or work done.

The gas company seeks an increased use of gas by its customers

## New England Gas Industry Sets High Record

By ALEXANDER FORWARD
Managing Director
American Gas Association

*Alex. Forward*

**THERE are special reasons for pleasure in the privilege of attending your meeting this year.**

**One is the opportunity to congratulate you upon the splendid showing made by the gas industry in New England during the past year, surpassing that of any other section of the country. Our statistics for 1930, completed yesterday, show that during the year of deep depression in the economic and industrial life of the country, and in the face of a loss of 10,000 customers, your sales of gas to cosnumers increased nearly 3 per cent for the year 1930 and your revenue registered a gain of nearly 2 per cent. What other industry can make such a remarkable showing?**

**Domestic sales excluding house heating totalled more than 34 billion cubic feet in 1930, an increase of 3 per cent over the year 1929. The domestic consumption per customer increased 3.8 per cent. The growth of the industry in this section would, therefore, have been much greater had it not been for the lessening of industrial demand, and with the return of normal business you will show further advances.**

**One of the most striking developments has been in the field of gas house heating and combined reports from your companies show that sales for this purpose in New England during 1930 amounted to nearly four billion cubic feet, an increase of 26 per cent over the preceding year. Further, house-heating sales represented also 8½ per cent of the total sales for all purposes. An additional evidence of the magnitude of this newer phase of the industry is that the revenues from house heating aggregated $3,346,000 during the year.**

**From a production viewpoint, the most significant change during the year was a marked increase in the distribution of coke oven gas. Such gas produced by the New England utilities increased 15 per cent, while that purchased by the utilities showed a gain of nearly 20 per cent.**

**There is never an effect without a cause. In your case the cause for record in such a year which will challenge the attention of the gas industry everywhere may be found in the New England character, in the work of your organization and in the leadership of such men as Mr. Barnum, Mr. Freeman, and Mr. Paige, now head of the national organization—Address before the New England Gas Association, at Boston, Mass., Feb. 4, 1931.**

and realizes that this is best done, in competition with other fuels, when the best equipment and the best service are available to the consumer.

The gas company appreciates that dealers are valuable friends and help to stimulate gas sales. If dealers are not treated as partners, they may be indifferent and even hostile. They have no recourse but to sell low-grade appliances and to blame defective operation of their equipment to poor gas.

It is probable that the gas company will have to remain in the appliance business, for itself and for its customers. The dealer may fill a demand, but the gas company must create and develop it. There must always be research and pioneering and the dealer is rarely in position for this undertaking.

Then, too, dealers are naturally in competition with one another. If left to themselves, all sorts of bad practices are likely to creep in, with cut-throat competition and dissatisfaction all around as a result.

How far a utility may go in cooperating with sales allies must be determined by local situations. Generally speaking, only the reliable, high-grade agencies, should be chosen for this effort. Having made the selection, the gas company can afford to be very liberal in its arrangements to help the dealers to help themselves.

The forms of assistance will vary, but the following are suggested possiiblities:

The gas company carries the inventory.

Appliances are loaned on consignment to dealers for display.

The company advertising is designed to help the dealers' sales.

Salesmanship courses may be made available to dealers' representatives. This is new but thus far has been very encouraging.

Liberal credit arrangements with dealers are usually very necessary and the gas company must provide easy terms for purchasers of appliances.

The company, in most cases, should deliver appliances and, where possible, connecting work should be given to plumber dealers.

Finally, and most important of all, there must be a dollar in it for the sales ally. The plan must be guided constantly, once it is launched. If it is allowed to drift, a wreck is almost a certainty.

Whatever plans are made and whatever assistance is proffered, flexibility must be assured so that adjustments can be made to meet our ever changing conditions.

May I voice one word of warning. Whatever plan you follow, bear in mind that unless you are willing to back your judgment with the utmost in perfect service to the customer, you will be disappointed in your result.

The dealer needs your service to keep up his confidence, but you need it even more.

The third utility relation is that of Association affiliation. Public relations, as a subject, has been discussed before gas conventions many times. This paper does not go into these so-called "public relations" but deals especially with other relations.

The relation of association comprises our local and national organizations and affiliated activities.

The development of the gas business in recent years has been remarkable. It has been more than optimistic. It has been enthusiastic. (Right here in Boston, not many days ago, an electric man said that his industry might do well to learn a lesson from what the gas industry had done in the perfecting of gas ranges.)

We have progressed. Along with this intensified interest has come a corresponding expansion in association activities. The expenditures by gas companies in dues, in expenses for conventions, in subscriptions, have grown to large proportions.

You have your annual convention, your sectional meetings, your committee activities. The American Gas Association has its convention, its regional meetings, its sections, and a considerable staff engaged in correlating and coordinating the work of all its ramifying interests. The larger holding or management companies have their own meetings, which are often sizable conventions in themselves.

Besides the actual money spent in all of the above, there is the time of delegates taken from their regular occupations. If this were figured as time lost, it would be of substantial concern to everyone.

The time has come to take account of stock. Everyone agrees that most of the work which has been done was necessary and has returned results. We are all mindful of the rapidly increasing budgets of associations. I am sure we are not worrying about the amount of money we spend, but we do want assurance that money will be spent wisely and only where necessary. I am advised that you have this matter very much in mind in your own association.

I can assure you for the American Gas Association, that the whole question is being given most earnest thought. Dana Barnum is chairman of the Comimttee on Five-Year Program for the national Association. He has expressed his views in this terse comment "Either the same result for less money or a better result for the same money."

Do not get the idea that management has been careless. Those whose opinion I value tell me that our gas associations are handled with better financial control than almost any similar trade organizations. The idea is to concentrate on productive enterprise and not spread ourselves too thin or wander up blind alleys.

Above all, do not think that this review is based on retrenchment because of any prospective recession in the gas business. The unanimous belief of gas men is that the business was never sounder and today has a brighter prospect than ever before.

Sometime a plan will be developed, I believe, under which a more efficient convention system will be provided. Parallel activities will be avoided and each will fulfill its own destiny to the advantage of the whole.

# The A. G. A. Seal of Approval

## Its Design and Use

By R. M. CONNER,

Director, American Gas Association Testing Laboratory

*Figure 1*

*R. M. Conner*

THE significance of the American Gas Association's Testing Laboratory Seal of Approval was quite adequately set forth during 1928 in a report* made by B. J. Mullaney's Committee on Economic Aspects of the Laboratory Approval Seal. This committee's recommendations were later approved by the Association's Executive Board. Some misunderstanding still seems to exist, however, concerning the proper design of this symbol and the manner in which it should be used. It is felt advisable, therefore, to describe the present accepted design of the Seal and set forth somewhat in detail the Laboratory's policies governing its use.

The use of a trade mark, seal, or a symbol of any kind must necessarily be limited to certain products or a class of products, otherwise it would have no significance and its mere attachment to an article would be meaningless and represent in itself a waste of both time and money.

In the beginning it was understood that use of the Laboratory Seal of Approval would be limited strictly to those gas appliances which had been approved by the American Gas Association's Testing Laboratory. It was hoped that the Seal as such, would become a guide to the buying public.

The proper design of the A. G. A. Laboratory Approval Seal is shown by Figure 1.

The five-pointed star in the Seal is light blue in color; all other parts of the symbol must be in black and on a background other than blue or black. As illustrated in Figure 2, $R_1$ is the radius of an inner and imaginary circle within which is inscribed the monogram *gas;* $R_2$, that of the circle inscribed within the star and about the monogram; $R_3$, that of an imaginary circle forming the base of the word *American* and the top of the word *Association;* $R_4$, that of the circle passing through the points of the star; and $R_5$ is the radius of the outer circle. The height of all lettering except that in the monogram must be equal to the radius $R_1$. Various parts of the Seal described must be of the following proportions:

$R_1 : R_2 : R_3 : R_4 : R_5 : 5 : 6 : 16 : 24 : 32$

The Laboratory Seal of Approval is copyrighted and must be constructed exactly in accordance with the design, color and proportions given above, except as hereinafter specified for use in advertisements, catalogues, etc. Fundamentally this seal is a guarantee that appliances to which it is attached comply with national basic requirements for safety. It also insures that they contain the necessary features of design and construction essential to safety, and that the appliance possesses an acceptable operating efficiency. It is in no sense a symbol of quality, however, beyond being *prima facie* evidence of the appliance's compliance with the approval requirements of the American Gas Association.

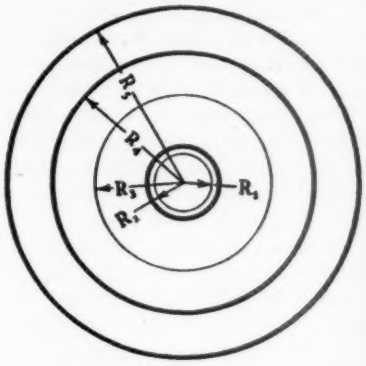



*Figure 2*

In view of some misunderstanding that exists concerning the proper use of the Approval Seal, the following regulations are listed as a guide for its use on approved appliances:

### REGULATIONS GOVERNING USE OF SEAL ON APPLIANCES

1. The Laboratory Approval Seal must be displayed on all approved gas appliances.

2. The minimum size of the Seal permissible for use on gas appliances is one inch overall dimension, that is, the radius $R_5$, as shown in Figure 2, must be not less than one-half inch.

3. The Seal used on gas appliances must be constructed exactly in accordance with the design, color and proportions shown in Figures 1 and 2.

4. The Seal may be made a part of the manufacturer's name plate on the appliance or may be attached separately.

5. The Seal, whether separate or a part of the name plate, must be permanently attached to the appliance. Attachment by means of bolts, screws, welding or riveting is considered as being permanent. Paper and other types of gummed stickers are not considered permanent. Decalcomania transfers may be used, providing they are of such a nature that they will not dry-out and peel off or become loosened or detached on cleaning or washing.

6. In attaching the Seal, bolts, screws or rivets must not be inserted through any part of it. In some cases manufac-

* Extracts from this report as well as other literature on the meaning of the Laboratory Approval Seal may be secured from the Director, American Gas Association, Testing Laboratory, 1032 E. 62nd Street, Cleveland, Ohio.

turers have attached the Seal by means of a screw or bolt inserted through the monogram in the center, and in other cases the Seal has been attached by a screw or bolt being inserted through each side. These and other similar methods should not be employed.

7. Letters, words or other symbols must not be inscribed within the confines of the Approval Seal.

8. The Seal must be attached to the appliance in an easily observed location and preferably be made a part of or located near the name plate. Attachment of the Seal to the front or sides of the appliance is considered satisfactory. It should not be attached to the back of the appliance.

The Laboratory Approval Seal is often employed for the purpose of advertising approved gas appliances in newspapers, trade journals, magazines and other printed matter. The value and far-reaching effect of such forms of advertising has long been appreciated. Gas appliance manufacturers, jobbers and dealers can undoubtedly use the Seal in connection with the advertisement of their approved products to advantage. As a matter of fact this procedure is highly desired, although care should be taken to see that such advertising is properly done. The following points should assist manufacturers in correctly designating approved products:

### RULES FOR USE OF SEAL IN ADVERTISING

1. Any reasonable size of the A. G. A. Laboratory Approval Seal may be used in advertising material.

2. The design and dimensions of the Seal must conform exactly to those shown in Figures 1 and 2. Where the background on which the Seal is placed is white, the star in the center may be either left uncolored, shown in white shaded with black lines, or entirely in black. This exception is made in the case of advertisements in newspapers, magazines, catalogues, circulars, price lists, etc., in order to minimize the cost of such material, and in view of the fact that newspapers are usually printed in black.

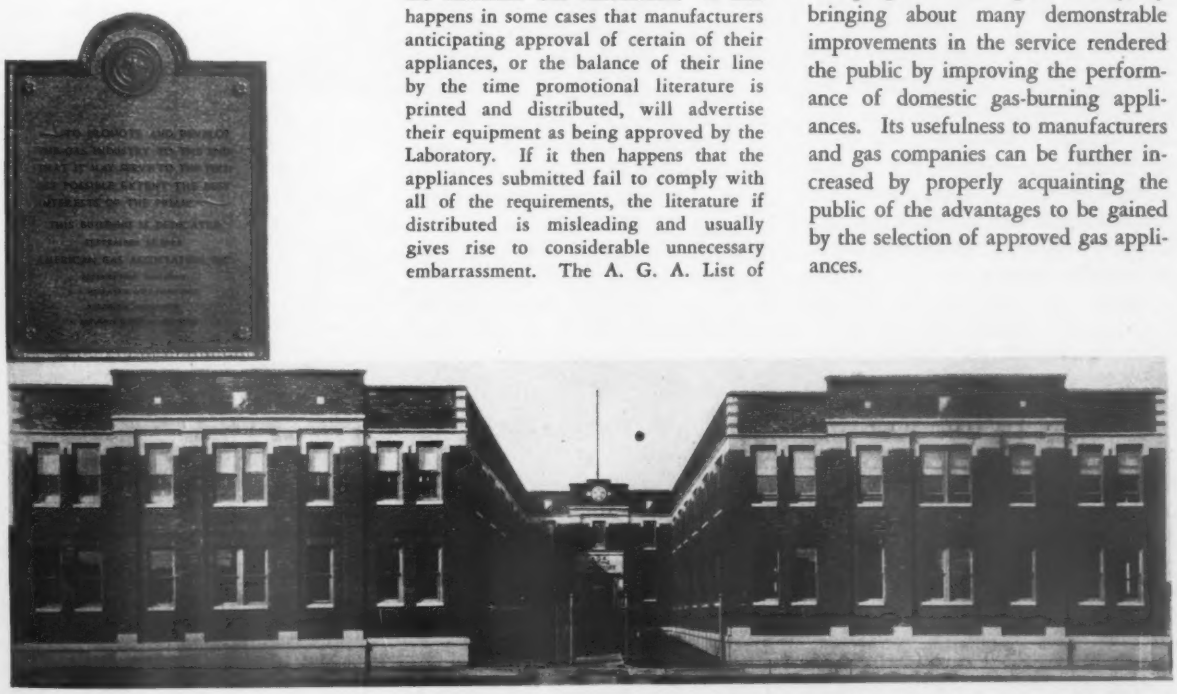
3. It may seem quite needless to add that unapproved gas appliances should not be advertised as being approved; however, it occasionally happens that manufacturers, distributors and dealers, advertising appliances only some of which have been approved, will include a general statement to the effect that their products have been approved by the American Gas Association. It also happens in some cases that manufacturers anticipating approval of certain of their appliances, or the balance of their line by the time promotional literature is printed and distributed, will advertise their equipment as being approved by the Laboratory. If it then happens that the appliances submitted fail to comply with all of the requirements, the literature if distributed is misleading and usually gives rise to considerable unnecessary embarrassment. The A. G. A. List of Approved Appliances should serve as a guide in this respect.

4. Where a number of appliances are advertised collectively, some of which are approved and some of which are not, statements concerning approval by the American Gas Association should be so arranged and worded that they will be clearly understood to apply only to approved products.

5. Accessories of various kinds are not, and never have been approved by the Association's Laboratory as separate devices, but only as a part of, and in conjunction with the appliances to which they are attached.

6. Rating sheets, advertisements or catalogues specifying A. G. A. input and/or output ratings of approved appliances should contain the ratings shown in the Association's List of Approved Appliances.

The advertisement of gas appliances as being approved by the American Gas Association, as well as display of the Laboratory Seal of Approval, should react to the benefit of manufacturers and dealers and, at the same time, serve as a guide to the buying public in the purchase of certified gas appliances. The A. G. A. Laboratory has contributed very definitely to the development and progress of the gas industry, by bringing about many demonstrable improvements in the service rendered the public by improving the performance of domestic gas-burning appliances. Its usefulness to manufacturers and gas companies can be further increased by properly acquainting the public of the advantages to be gained by the selection of approved gas appliances.



*The A. G. A. Testing Laboratory at Cleveland. Insert, the Laboratory's Pledge—"To Promote and Develop the Gas Industry to the End that it May Serve to the Fullest Possible Extent the Best Interests of the Public."*

# The Human Side of Serving One Million Human Beings

*A. G. A. Employee-Customer Relations Study Group of Consolidated Gas Company of New York*

By HOWARD F. WEEKS

Asst. Advertising Manager, Consolidated Gas Company of New York

THE problems that arise from conducting business with one million persons were dramatized at a dinner held recently in the office of the Consolidated Gas Company of New York. The affair was arranged by the departments under Oscar H. Fogg, vice-president, for the fifty-two group leaders who are assisting in the direction of the company's course in employee-customer relations.

It is doubtful if any of those present had expected more than the customary testimonial dinner, at which good food and cigars are served and the usual sentiments expressed. The group leaders themselves were responsible for making it one of the most outstanding employee gatherings ever held by the company.

George B. Cortelyou, president of the company, Colonel Fogg, the presidents of affiliated gas companies and interested department heads were present, as well as several guests from the American Gas Association and J. David Houser and Associates. Frank L. Hallock, assistant to Vice-president Fogg, and director of the public contact division, presided over the program.

The program consisted of talks by fourteen of the group leaders on the value of the training that the contact employees are receiving through the A. G. A. Course in Employee-Customer Relations. There was frank and earnest discussion of the results obtained by the group conference method of conducting the course, and each of the leaders stated emphatically that this is responsible for maintaining the enthusiastic interest of the 1,000 employees now enrolled.

At the conclusion of these talks, Colonel Fogg spoke briefly on the serious intent of the group leaders and of the far-reaching effects of the work that they are doing under Mr. Hallock's direction. He was aware, he said, of the potential effect of these efforts on the service standards of the company, and his confidence in the course was confirmed, not only by the start already made, but also by the evidence that all the leaders had grasped the real significance of their undertaking.

Colonel Fogg pointed out that more than twenty years ago, Mr. Cortelyou, soon after becoming president of the company, had stated that "no firm structure of good will or proper public relations can be erected unless the foundation is sound. That foundation must consist of good service courteously rendered.

"This basic principle has been a constant incentive," Mr. Fogg continued. "To the best of our ability we have tried to apply it in improving our relations and our contacts with the public. There has been steady improvement as the years have passed.

"Mr. Cortelyou's leadership has given us many inspirations. One of them is that we are never quite content—we always want to do just a little better, and so, when the American Gas Association course of training for contact employees began to take definite shape, we were quick to sieze upon that as an opportunity to go further ahead in a more systematic way than had hitherto been possible.

"We entered upon that work backed by the keen interest and the wholehearted support of the officers and executives of the company and its affiliated companies.

"What we have heard here tonight should be enough to convince anyone who might have been skeptical that this activity is not only tremendously worth while, but that it is being conducted capably and most successfully by those who have it in charge. Mr. Hallock and the group leaders who are doing the work are doing it well.

"We know something of your interest and your devotion to this task, but I think there could be no more convincing tribute to your leadership and the inherent value of the training than the sustained enthusiasm which has been shown by those employees who are taking the course at this time.

"You were quick to grasp the importance of what we contemplated, you became immediately alive to its significance and value, and you have with skill and unabated enthusiasm carried this work forward. This dinner party tonight, which is really in your honor, gives me the opportunity to express on behalf of the officers of the company our appreciation and our congratulations for what you are contributing to our efforts to better the service we render our customers."

Although Mr. Cortelyou had not originally planned to speak at the gathering, he arose at the conclusion of Mr. Fogg's speech and said that he was so impressed with the importance of the contact training course and the earnestness of purpose on the part of the group leaders that he could not overlook the opportunity to extend his personal thanks to them.

*Another Class of the Consolidated Gas Company of New York participating in A. G. A. Employee-Customer Relations Course*

Mr. Cortelyou said that he had a peculiar interest in the course, for all of his life he had been engaged in various phases of service to the public. He spoke of his confidence in the ability of the leaders, and said that it is often true that those who are engaged in doing important things are not always fully aware of the real significance of their work.

The dinner was instructive and informative, he said, and the leaders were representative of the spirit and ideals of the company—to render increasingly better service, so that the day might soon come when the service of the Consolidated Gas Company would be accepted as the standard for all types of service.

Two interesting features of the dinner were the subject of comment by those present. One of these was the unique place card that bore the wording, "Will Mr. ——— Please Sit Here. Thank you." The other was a dramatic sketch that showed the effectiveness of contact training. The sketch was prepared and presented by Mary O'Brien and Hannah Donovan, of the Company's 14th Street District Office, to demonstrate the proper and improper methods of handling telephone applications.

The speeches of the fourteen group leaders stressed many important aspects of contact training, among them the fact that the course is not an experiment, and its effect, while not completely measureable in exact terms, will lead to better work on the part of employees and to an increased feeling of loyalty, since it shows the employees the vital importance of making friends for the company.

It was pointed out that employees never deliberately attempted to leave a bad impression with the customer, but, on the other hand, they never have known all of the ways and means of creating a good impression. This is in no sense a criticism of the contact employees, and, as a matter of fact, it is to their credit that they have been so successful in their methods, which have been haphazard and non-scientific in some respects.

One of the group leaders expressed it as follows:

"We all agree that to obtain the confidence and genuine good will of our customers, it is necessary that our customers understand the problems which we, as a public utility, have to face, and why we do things as we do. It is obvious that if this proper attitude of understanding on the part of customers is to be obtained, our employees must first have the necessary information and understanding of these problems. It is not enough for an employee to know that a certain situation is the case; it is necessary to know, for example, why a certain practice is followed, so that the employee can explain to the customer in an intelligent manner why the practice is followed."

One of the most interesting by-products of the Employee-Customer Contact Course is that it has shown the company's executives the type of contact problems that these employees have to face. A most interesting case was reported by one of the group leaders at the dinner meeting. Here it is, in the group leaders own words:

"At the first conference held by my group, one of the men, a fitter, told of an unusual experience. This fitter had gone to an apartment to repair the connections to a gas range. The lady of the house opened the door, and after being told of the object of the visit, said, 'Well, that's fine, but you can't come into my house unless you first take off your shoes.' Needless to say, the man was non-plussed. He thought a minute, and then said, 'Well, if you can stand it, I can.' The fitter then took off his shoes, went about his work, and, as he prepared to go, the woman thanked him quite profusely.

"When this case was first reported

at our group meeting, I asked all of those present what they would have done under similar circumstances. The general opinion was that the fitter was rather foolish to accede to such a ridiculous request on the part of any customer. At one of the later conferences, I brought up this same incident again, and it was interesting to note that more than half of the employees then felt that they would do the same as the fitter had.

"This change in attitude is certainly not due to the men wearing better socks. It seems to me that the course in contact training is alone responsible."

It was brought out at the dinner that the group conferences method of conducting this course is considered by the employees themselves as the most effective that could be devised. Already there are indications that these monthly conferences are developing into clinics at which the contact employees can review and discuss the various problems that arise during the course of their work. The employees are all contributing experiences and ideas at these meetings, and are enabling the company to store up a vast reservor of knowledge concerning the relations of the employees with customers.

One most interesting fact emphasized by the group leaders at the dinner was that the course is neither academic nor theoretical. It is built for contact employees, one leader said, and "the employees are taking to it like a duck to water."

Excerpts from some of the speeches made by students follow:

"In the short time we have been using this method in our conference work, there has been a very noticeable alertness or toning up in the contact work. We cannot say that this one or that one is improving but it is like the fog, you can see it, you can feel it, you know it is all around you, but you cannot put your finger on it."

"The Course on Customer Contact has been received, is being studied and its teachings are being tried out by the enrolled employees in such a friendly spirit that it is giving them a deeper interest in their work, the customer and the company. This will lead to not only better work but an increased feeling of loyalty to the Company we work for. Also between the different departments of the company a better spirit of cooperation has shown itself, resulting in a 'let's all pull together attitude,' that will quite naturally be of benefit to the company as a whole and improve our relations with the public."

"It sure has been a pleasure to act as one of the leaders of these employee-customer relations groups. The results of these conferences have already been noticed by the members in their daily contact with the customers on the district. As supervisor of the Maintenance Division of the Refrigeration Department, it has been my good fortune to witness several contacts before and after this course started, and I find a big improvement in the way difficult situations are handled. Before taking the course the men were inclined to pass the buck and shirk responsibility. After discussion at several meetings the group decided on the proper procedure in handling these special cases. When following suggestions arrived at in these meetings the men are well pleased with the results obtained in their contacts on the district.

"During our first meeting interesting customer contacts were introduced for discussion but as meetings are limited to one hour we could not reach a conclusion in every case. One of the members suggested meeting that evening after business hours and finishing discussion of these problems. The rest of the members volunteered to come to our office that night. Twenty-one men came in that night at 5:15 P.M. and stayed until 6:30 P.M. It was so interesting that it was decided to have one of these meetings at least once a month. At our second voluntary meeting forty-one men reported and stayed until 7:30 P.M."

"Employee training has developed into a definite technique. Various methods, such as Lectures, Class Methods, and Group Conferences, lend themselves to the training of employees. Of the three, it is felt that the group conference method will obtain for the utility the results desired, because it has the tendency to develop the thoughts of the individual and to encourage free discussion of their own contact problems."

"We, of the Consolidated Gas and Affiliated Gas Companies, have striven at all times to give to our customer, the public, the finest type of service that could be rendered; today that service has been augmented by a thinking and understanding clerk; a clerk who is not content with accepting an order and passing it on, but is ever anxious to see that the customer receives all the information and attention essential to the proper handling of the order and good service."

"Like all large enterprises or undertakings, this educational course, with an enrollment of 1,000 contact employees of our companies, has more than doubled the number of enrollments, by social and home contacts. It is most natural to discuss with the members of our families and our friends, the things in which we are most interested, and by doing that we are carrying the educational program to thousands of people who are not employees of our companies.

These people, in turn, tell us of their contact problems and the methods used by utilities and other concerns in their dealings."

"Since my employment with the Consolidated Gas Company, I have seen many steps of progress made by our company in the rendering of courteous, prompt, and efficient service, but the Employee Training Course of Group Conferences is the keynote of them all."

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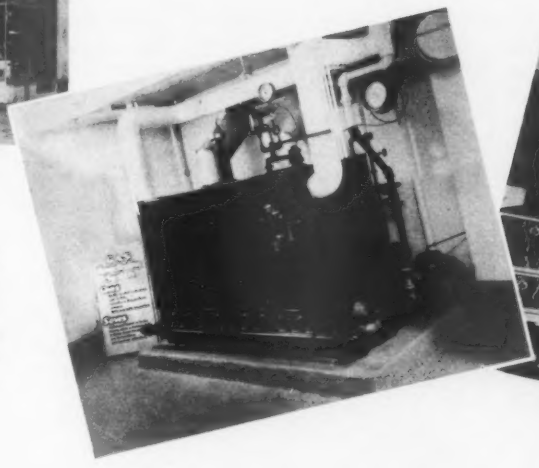
## Chemical Subcommittee Meets in New York

LOUIS C. SMITH, assistant to the managing director of the American Gas Association, represented Association headquarters at an informal dinner-meeting of the Regional Subcommittee of the Chemical Committee, Technical Section, held February 19 at the Duffy Tavern, New York, N. Y.

E. C. Uhlig, chairman of the committee, presided, although there were no set addresses, business being taken up with informal discussions of topics of interest to the chemists present.

# Consumers' Gas Company Opens New Branch In Toronto



*Upper left—Entrance to the New North Toronto Branch of the Consumers' Gas Company. Lower left—Gas-fired heating system. Lower right—Display room.*

ON January 24, 1931, a new branch office and salesroom of the Consumers' Gas Company, Toronto, Canada, was formally opened by Arthur Hewitt, vice-president and general manager of the company and vice-president of the American Gas Association, in the presence of a large and representative gathering of citizens who thronged the building throughout the day and evening. Appropriate music was provided by a ten-piece orchestra, and refreshments were served by the home service department.

Located at the corner of Yonge Street and St. Clements Avenue, in the midst of a prosperous shopping center, the new building is the first in the city of Toronto to be planned and built specifically for the display, demonstration and sale of gas appliances. It consists of two stories and basement, on a site forty-two by eighty-five feet, and presents a strikingly beautiful appearance, with show windows on both thoroughfares.

Built of cream limestone, with marble facings, the small structure is of the latest steel-frame fire-proof construction, with corkboard insulation, and is automatically heated by a gas-fired boiler. The exterior is given unusual lustre by the use of cast aluminum and other metals on the facade, the effect of which is considerably increased at night by four ornamental lighting standards in addition to the regular street lights.

The main doors on Yonge Street lead directly into the showroom, where panelled walls are fitted for the proper display of modern household appliances. Behind the panels are concealed the gas, water and vent connections, sufficient space also being allowed for fitters to work. This arrangement enables the salesman to demonstrate the appliances under conditions closely resembling those of a well-equipped home.

At the rear of the show-room, facilities are available for the payment of gas accounts and for the transaction of company business. A broad stairway leads up to the auditorium on the second floor, where cooking lectures are given regularly; here the homemaker finds new and convenient kitchen equipment, and is encouraged to bring her cooking problems to the attention of the home service department representatives.

The auditorium has seating accommodation for 200 people, and it is interesting to note that, at the opening lectures, this accommodation was taxed beyond capacity. In the basement of the building is located the district representatives' office space, also storage rooms and the automatic heating plant, water heater and incinerator, these appliances being of the latest designs in gas-fired equipment.

The Consumers' Gas Company, in this newest addition to its premises, expresses the enterprising spirit of a business which, for eighty-three years, has been associated with the steady growth of the City of Toronto, and the excellent effects achieved are, moreover, the result of using domestic products, made in Canada by Canadians.

# Gas Companies Invited To Compete for Insull Award

INVITATIONS to compete for the first annual Insull Award for Distinguished Public Service were distributed from American Gas Association headquarters to gas company members last month. This award has been made possible through the generous cooperation of Samuel Insull, of Chicago, Ill.

In order to make the award effective to the maximum degree, every member gas company, whether manufactured or natural gas, large or small, is being urged to compete for it. It is believed certain that decision to compete for the Insull Award will give member companies an opportunity to quicken employee interest in public service, apart from the chance of winning the award.

"We bespeak careful attention of all member companies to the conditions of the award which will represent the highest honor within the power of the industry to confer upon any of its member organizations for distinguished public service," said Alexander Forward, managing director of the Association, in a letter which accompanied the invitations.

Major Forward explained that the first Insull Award will be for outstanding progress during the three-year period ending with 1931 and will be presented at the 1932 Annual Convention of the American Gas Association. All member companies of the Association in the United States, its possessions, or in Canada, whether large or small, manufactured, natural or mixed gas, are invited to submit exhibits under the conditions, described in the invitation, for consideration of the special committee which will examine the exhibits and recommend the winning entrant to the Executive Board of the American Gas Association. This committee will be composed of the President of the Association, the Vice-President, the immediate past President, and two others to be elected by the Board.

The purpose of the award is to give the official recognition of the gas industry to the outstanding accomplishments of its members in rendering distinguished public service, so as to stimulate the industry's efforts in this direction, and to inform the industry as to the methods by which these accomplishments have been achieved.

In order to make the comparisons of company accomplishments more valid and significant, the following classifications have been established for companies exhibiting:

(Continued on page 140)

# Relationship Between Central House Heating and Fireplace Heating with Gas*

By R. F. CLEARY

Sales Manager, Homestead Heater Company, Newark, N. J.

THE subject of Auxiliary Heating undoubtedly should include circulating heaters, gas or gas steam radiators, room heaters of various portable types, and fireplace heaters.

May I plead guilty to only a superficial knowledge of the first three groups and plunge directly into the subject of fireplace heaters and their relation to the gas business of the future.

This relationship may or may not be important, but there is a chance that it is tied up very closely with central house heating with gas.

Has it occurred to you that our industry is trying to do a combination high and broad jump in going after central house heating without going through necessary intermediate steps.

Think back in the history of the industry and note how each step has been but a very modest step, indeed.

In the old days gas was used for illumination almost exclusively. We had the old-fashioned light fixture with the lava tip as the only method of load-building. Next, we went to single, vertical, incandescent mantels and then to that wonderful load-builder, the gas arc lamp with its plurality of mantels. Then, the inverted mantel, more efficient and, as a direct result of previous experience, readily accepted by our customers, the general public.

Then, recall how we were driven into cooking by our, then, little brother—the electrical industry.

First, the single burner hot plate on the wooden cover of the set tubs in the kitchen; its ever-leaky flexible tube gracefully festooned over to the equally graceful gooseneck light fixture.

Of course, this single hot plate was only used to get coffee for father's early breakfast before the kitchen wood or coal range was ready for the day.

But, father wasn't satisfied with hot coffee. He insisted on hot eggs or oatmeal. Hence, we had to have a two burner hot plate on the tubs and get a new, flexible tube in order to get gas enough to supply both burners.

By this time, mother had found that gas was pretty good stuff. She got at least twenty minutes more sleep mornings with the hot plate on the job and the first thing we knew we had the tinsmiths busy making ovens to go on top of one of the burners. Some of them had a cute little window in the door so that you could tell before you opened it whether the food was cooking or burning.

After that, we got those wonderful black painted iron cookers with the oven situated so that the ladies ruined their dispositions and corset strings trying to look into them. We seem to be reverting back to that type in some of the new styles but as there are few, if any, corset strings to worry about the dispositions will have to look out for themselves.

After we got the ovens up where they seemed practical we put enameled panels here and there until we finally got to the full enameled range. Today, we are in the throes of still another forward step in ranges.

Water heating developed slowly and steadily through the little side arm heater until today many people have accepted the automatic storage heater as the minimum that will meet their requirements.

Then, auxiliary heating. Do you remember some of the first auxiliary heaters. I have a dim recollection of one that used a small bunsen burner fitted to the light fixture. An inverted pie plate was fitted over it as the heat deflector. If you didn't freeze first you eventually got warm.

Then, those stove pipe room heaters with the red, white, green, and blue cut glass jewels in the bottom so that you would know when it was working. Don't forget the pan of water on the top that, in some vague way was supposed to overcome the odor.

Those asbestos fronts that fitted under the mantel or covered the fireplace openings.

Those early gas logs and baskets of clay doughnuts that you were supposed to think looked like coal. They let raw gas filter through and burn, if it could.

Finally, we developed radiant heaters, an idea imported from England, improved upon and adapted to our conditions.

Step by step, from Bray burners to inverted arc lights and almost total eclipse by electricity. From the single burner hot plate to the art creations of today with automatically thermostatically controlled ovens. From the side arm tank heater to the gigantic automatic water heating installation for apartment house and hotels.

From the little yellow flame room heaters to the Victrola style circulator, electric powered unit heaters, the beautiful period styled radiant heaters and the radiant coal fires and log fires of today.

Is this industry that has had to go through this slow, conservative process of evolution in every department going to leap successfully right into the middle of central house heating with gas?

There seems to be some question about it. There will, of course, be exceptions but isn't it too much to expect the industry, as a whole, to

*Address delivered before Eastern Natural Gas Regional Sales Conference, Schenley Hotel, Pittsburgh, Pa., February 27, 1931.

do it successfully without some concentrated effort on the steps that go before it?

To build central house heating successfully means to do it profitably. That means it must be able to justify all the costs it entails; selling, advertising, and service. These costs will all be lower if we have general acceptance of the idea that the luxury of heating with gas is worth what it costs.

Perhaps this acceptance can best be accomplished by selling gas for heat in the fireplace.

The fireplace is an age-old institution where man has ever looked for warmth and comfort; a fireproof vented opening usually in the living room of the home.

Could there be any better place to advertise to Mister General Public the convenience and luxury of gas heat? Mr. General Public is used advisedly because if you will stop to realize it, the boiler or furnace is in his department of the domestic establishment, as is grass cutting and snow shoveling.

Heretofore, you have done business only with Mrs. Consumer. She bought the range and stood over it to cook a thousand or more meals a year. She used the hot water to wash and scrub, and bathe the children. She used the portable auxiliary heater when he forgot to fix the furnace or boiler before he went to work. She, in most cases, even paid the bills or made the high bill complaints. But your direct contacts with Mr. General Public have been few and far between.

However, if you save him from having to chop wood or bring up coal for the fireplace; if you fix it so that he has heat available when company comes in suddenly; if you give him heat in the fireplace when he wants to listen to a late radio program after he has fixed his furnace for the night; if you eliminate the complaints of dirt from the lady-of-the-house; if you save him the price of the gas and the fireplace heater because the elimination of dirt from solid fuel makes re-decoration unnecessary; if you do this with the fireplace heater in his home you will get acceptance that will give you a splendid point of contact on which to sell central house heating with gas.

Perhaps you don't feel that there are enough fireplaces to make it so important. But, I say to you, that fireplaces will average at least one to every house that will ever use gas for central heating. Fireplaces go with that kind of a home. For every desirable customer you find without a fireplace you will find one with two or three fireplaces.

Quite frequently we hear the remark, "We used to sell a lot of space heaters but we don't anymore."

There's a reason for that. The old-fashioned hot air furnace was a tempermental, inefficient brute and the under-sized, under-radiated steam boiler was just as bad. People needed some quick heat when these went on a strike. For a good many years we were supplying their need.

Houses built in the last fifteen years have better and larger furnaces, better and larger boilers. People no longer need auxiliary heaters as they did. Neither did they need radios, autos, nor mechanical refrigeration until those industries showed them they did.

It is up to us to teach them the luxury and convenience of clean, radiant heat in the fireplace at the touch of a match.

Do you realize that gas has no social standing?

When it is mentioned two thoughts come to the average person's mind: "odor" and "consumption." "Smell" is a synonym for one and "tuberculosis" for the other.

From there, their thought jumps to the range in the kitchen and the water heater in the cellar. But very seldom do their thoughts venture into the living room in connection with gas.

Why not get into the living room?

It will bring social standing and prestige. We will be able to call at the front door instead of at the back.

It will give us free advertising. Visitors who never see the range in the kitchen or the water heater in the cellar spend hours in the living room.

It is the best place in a house to burn gas; a fireproof vented opening already made that can be piped solid.

It is a permanent installation; the load factor is good for years whereas a portable heater's load factor is apt to be temporary.

It will build load early in the Fall and late in the Spring when the central heating plant is not in operation.

It is an efficiency argument in selling central house heating; because a lower temperature for the house as a whole may be maintained, if the auxiliary heater in the fireplace is available to give the added heat necessary when sitting around in the evening.

Finally, it is the last definite important step in the process of evolution if we are to have central house heating with gas universally accepted.

One gas company in the Middle-West makes a market analysis of its territory. We are indebted to them for the following figures on fireplaces for last year:

| | |
|---|---|
| Total number of fireplaces | 52,541 |
| Total number of gas fireplace units of all kinds | 41,430 |
| Total number solid fuel | 7,654 |
| Total fireplaces empty and unused | 3,457 |

Note that in this city 80 per cent of the fireplaces use gas for heat.

The same company is doing a most satisfactory job of selling central house heating. The same salesmen who sell ranges, water heaters, and other domestic appliances are the ones who are selling the central house heating.

Doesn't this seem to indicate that acceptance of gas as a space heating medium has been built up through fireplace heaters? Doesn't it also suggest that there are more fireplaces as potential gas users than most of us realize?

If this fireplace heater business is valuable, first, because of the definite load it develops and, second, because of its very definite psychological effect in building acceptance of gas as a space heating medium,

how are we going to get more of it?

In the first place we ought to give a little thought to fireplaces in the abstract so that we will approach the problem with a proper appreciation of its requirements.

We can go back as far as history and tradition will enlighten us and find that the open fireplace has always been the center of man's domestic establishment. We will see that through thousands of generations the fireplace has represented home and all that man held dear.

We will find that man still likes to see the fire that warms him. We will find that this feeling for and appreciation of the fire that can be seen is instinctive and universal, even today.

As we further consider it, we will discover that the average fireplace of today is not built solely as an efficient source of heat but rather as a traditional decoration. It makes a home out of what would otherwise be just a house.

When we become conscious of the fact that hundreds of dollars are added to the cost of building a house just to have a fireplace it suggests other thoughts.

For instance, perhaps first cost is not an all-important factor. Maybe the particular type of burner or radiant is not as important as decorative value in deciding the sale of a fireplace heater in the better type home. Perhaps, we have listened to the person whose back was cold crying for a cheap heater and have been misled into believing we couldn't sell better styles for the fireplace in the average home.

Perhaps, we have also felt that fireplace heaters were sold for heat only, and therefore were only salable in the Fall.

Perhaps, we have not realized the cumulative benefit we could derive by gaining popular acceptance of gas as the heating medium in the fireplaces of our communities.

If so, there is a lot we can do to get this type of business.

"Luxury," "beauty," "style" and "appropriateness" are adjectives we can make use of in our sales efforts instead of so much stress on "efficiency."

"Efficiency" can be covered in one word.

The average fireplace heater uses only about ten cents worth of natural gas, burning from seven to twelve o'clock, of an evening. You can't get ten cents worth of coal or wood to burn that long, so efficiency and economy are quickly and completely covered.

We can teach our salesmen that while $50 or $100 seems to them like a lot of money for a fireplace heater, it is really a very small amount when considered as a decoration in the living room.

Add up for them the cost of the furniture, the rugs, the piano, the radio, the draperies, the fireplace itself, the lights, and other decoration in the average living room. You both will be surprised at how the cost of a better type fireplace heater shrinks in comparison with that total.

If we admit there is a possibility that decoration of that empty hole under the mantel may be a factor in the sale, let us make our salesroom displays attractive. If we have a fireplace, let's burn a heater in it even though we have to turn off a steam radiator or two on account of the additional heat.

Let's change the heater in the fireplace often enough so that the many different styles available are brought to the attention of our customers.

If we don't have a fireplace in the showroom, let's get one. A chair or two before a cozy fireplace is a great place to close difficult prospects.

Let us try to get gas piped to the fireplace in new homes. It might be worth while even if he had to give the builder a "wood fire igniter" for nothing.

Let us check up the number of fireplaces in our community so that we know what our potential is.

Let us not be satisfied with an order for a range and a water heater for a new house. If it has a fireplace it is a prospect for a fireplace heater. List it as such and follow it up.

Let us make a real effort to sell "The Jones" in our community and when we sell them, tell about it. We're all still trying to "Keep up with the Jones."

Let us call back on our fireplace installations. Remember they are usually in the living room where visitors are entertained and if they are high class, impressive installations, the visitors' names may be given to us as prospects.

Let us get over the notion that fireplace heaters are a sideline to be sold only in the Fall. You can all recall some fine installations made in the Summer and we could make more of them if we tried hard enough.

Let's start the active season with new, fresh models instead of discouraging the customer who wants something good, with a lot of leftovers from the previous season.

These are a few of the things we can do. Many more and, undoubtedly, better suggestions will come to you.

Central house heating is the top of the ladder. It presents a wonderful future for the industry; but there is a rung missing from the ladder that we need, and need badly. That rung is fireplace heating with gas.

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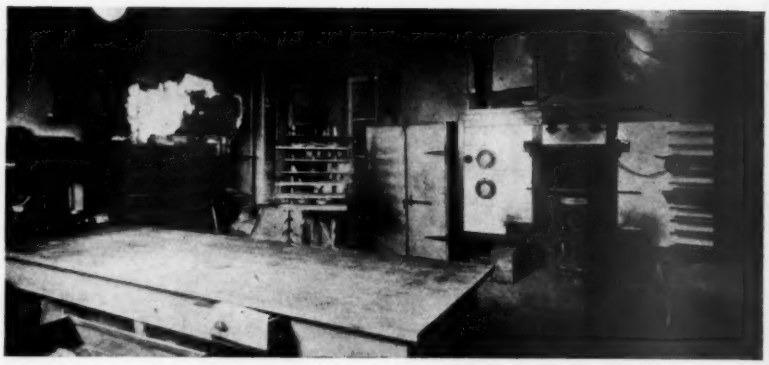
## Making Gas and Coke in a Miniature Plant

NEW methods for determining the composition and quality of coal with a view to improvement in its utilization are constantly being developed by the United States Bureau of Mines at its Pittsburgh, Pa., Experiment Station, in cooperation with the American Gas Association.

One of the most recent developments is a method for determining the amount and quality of carbonization products obtainable from a given coal—that is, the method is designed to compare the carbonizing properties of coals. The apparatus in which this test is made is, in effect, a small coke and gas plant, but arranged for much more accurate control of carbonizing conditions and recovery of products than is possible in a large plant. The charge of coal used is seventy-five to ninety pounds. This is heated in a welded metal retort charged into an electric furnace whose temperature can be kept constant automatically, and all the products, including coke, gas, ammonia, tar, and water are measured and analyzed.

The quantities of products yielded in a test, of course, vary with the coal and the carbonizing temperature maintained, but as much as sixty pounds of coke, 500 cu.ft. of gas, and a half-gallon of tar with other products in proportion, are usually obtained. These quantities are sufficient for exhaustive analysis and testing.

# Gas Scores as Best Fuel for Cooking



*One Corner of the Bakery*

By J. B. NEALEY
American Gas Association

GAS is the fuel universally used in cooking, where gas is available, and most of the reasons for its adoption are only too apparent to those who have used other fuels. On the other hand few realize that it is the cheapest fuel to use and yet this is the case. Take, for instance, the world's largest city, New York. Here all of the hotels, 98 per cent of the restaurants, bakeries, etc., and practically all of the families living in apartments, separate homes, etc., use gas for cooking. What is true of New York is typical of practically all cities in the United States, be they large or small.

Surveys of hotels, restaurants, cafeterias, lunch rooms, etc., made by the American Gas Association, show a wide variation in the amount of fuel required to cook a meal. Some of the costs for gas run well under a fifth of a cent per meal. One survey covering the kitchens of 29 such places disclosed the fact that 17 used between five and ten cu.ft. of 525 B.t.u. gas with three using less than five and one, a chain lunch serving 25,000 meals daily, consuming only 1.8 cu.ft. per meal. The remainder burn more than ten cu.ft. per meal but, on the other hand, these high consumers serve less than 400 meals daily.

This indicates that the more meals produced per kitchen, the lower the gas consumption, which is only natural as the ranges and other equipment are used more intensively. In other words, the reason for the higher consumption is no doubt explained by the fact that the equipment is not being utilized at anywhere near to capacity, for these particular hotels and restaurants are doing a short order business which is always wasteful of fuel. A weighted average of all of the figures obtained in this survey shows that the average gas consumption per meal runs below seven cubic feet. Taking the rate of $.75 per 1,000 cu.ft., which is a popular one in this country, this means that the average gas cost per meal is well below three-quarters of a cent.

Another such survey, which included 78 restaurants, cafeterias, factory restaurants, quick lunches, lunch wagons, etc., disclosed 6.4 as the weighted average cubic feet per meal.

The fire hazard involved in the use of different fuels seems never to have been defined in the minds of the public. Those interested in any one fuel more than another, often carelessly state, "Oh, such and such a fuel constitutes a large fire hazard," when just the opposite may be true. Now the National Board of Fire Underwriters maintains one of the most impartial and painstaking statistical organizations in the world and one of its duties is to gather statistics of losses by fire and their causes. The last list completed by this organization was for 1928 and this shows that losses, in dollars and cents, by fires caused by petroleum and its products, oil, kerosene, etc., amounted to 476.5 per cent more than those started by gas. Furthermore, losses sustained by fires which were caused by electricity were 581.8 per cent greater than those for which gas was responsible.

Turning from generalization to particularization we will now go into the details of a typical kitchen. It happens to be that of a restaurant but is in no wise different from a hotel kitchen, serving the same kind and number of meals. It is the Old Homestead down in the financial district—Wall Street—of New York City and serves popular-priced meals to the workers in that section. Probably the largest restaurant in that territory it serves from 3,000 to 5,000 meals daily and on the day of the Wall Street crash, fed more than 10,000 people.

A brief history of this establishment may be interesting. William Patterson Meyer, Jr., the owner, started the Ring Bakery, which is still famous for its coffee rings, in 1917 and sold out four years later. The money received from this enterprise was lost during the ensuing year and in 1925 Mr. Meyer started all over again with a luncheonette at 108 Greenwich Street, having only 26 feet frontage on the street, 12 tables and one waiter. This place prospered and was soon bringing in more than $750 daily, and in 1926 Mr. Meyer persuaded the owner of the ground next door to build a

nine-story building and rent him the ground floor and basement.

This was fitted up as a restaurant, seating 530, in 1928 and the basement was transformed into a grill and oyster bar seating 128 while the seating capacity of the luncheonette had been increased to 130 some time previous, and, in addition to the tables, a long soda bar had been installed. On the floor above the luncheonette is run an outside service for customers desiring to eat in their offices, telephone orders being received and the lunches, ranging from the ham sandwich variety on up to broiled lobster and fixings, are made up in paper cartons. An index to the volume of this business lies in the fact that these cartons are bought by the carload. Last year this business paid $70,000 net and a cafeteria that will seat 178 is being built next door, so that the address of the Old Homestead will soon be 104-112 Greenwich Street.

This combination restaurant, grill, luncheonette, etc., is served from a single kitchen and a single bakery. Everything is made here, beef being purchased in carloads whole and broken up by butchers on the premises. Coffee is blended and ground daily, ice cream, 100 gallons per day, is made in his own freezing plant, 200 pies, 600-700 dozen rolls and a large volume of bread and pastries are used daily. The rolls, bread, pastries, etc., are made up and baked in the bakery which is located on the second floor back of the outside lunch service room.

The personnel consists of more than 100 employees including one chef, 16 cooks, 3 bakers and 2 butchers. The kitchen is completely fitted up with the most modern equipment and motorized labor-saving devices throughout. Along one side wall are 8 gas-fired cooking ranges and a gas broiler with a long serving table in front. Steaks and fish are sliced in a motor driven band saw provided with an automatic feed while other meats are divided in a mechanically driven slicer and stacker. In this way accurate control over the size and thickness of all portions served is strictly maintained.

The gas broiler is of the latest design and is the first real improvement in this type of cooker in history. The burner is in the nature of a refractory slab brought up to incandescence with gas flames, which projects a solid sheet of radiant heat comparable to that of the sun, down onto the food. Another specialty here is a gas fired combination coffee urn of which there are 16. When the handle of the spigot is turned in one direction, black coffee issues forth, but when it is turned the other way, creamed coffee comes out.

In proofing doughs both heat and humidity are necessary and this is also accomplished with gas. The proofer is of sheet steel with doors in front and in the bottom is a gas burner. Above this burner sets a pan of water and by the evaporation of this water with gas heat the atmosphere of the box is brought up to the correct percentage of humidity as well as the right degree of temperature.

As with the other cooking units, the grease kettles are equipped with the most modern type of gas burners, so designed as to furnish the maximum heat, almost instantaneously and with the lowest economy in fuel consumption. There are two of these kettles in one steel setting and each is heated with four gas burners of the immersion type. Four steel tubes closed at the further end, extend into the kettle and are welded into one side. The burners fire directly into these tubes furnishing the greatest heating area at the most practical points. The grease is maintained at the correct temperature with an automatic temperature control.

There are three kitchen machines (dough mixers), stock pots, steam kettles, etc., etc.

The bake shop contains a bake oven of brick and tile that is 10x14x6 feet high and is heated with three gas burners located in front and beneath the hearth. This oven is provided with two thermocouples and two visual-pyrometers so that a careful watch can be kept of both the top and bottom heat. In addition there is a four shelf bake oven that is heated with six small gas burners.

Refrigeration is provided by three ammonia machines of 2, 5 and 7½ tons' capacity respectively and with nine mechanical refrigerators. Ice boxes are scattered throughout the establishment where most convenient. In one, meat is frozen and kept at 20° F. while two others are maintained at 10° below zero for ice cream. All of the soda and water is precooled before it reaches the carbonator and is cooled when it comes out and is then cooled again at the fountain.

In summing up the reasons for his success Mr. Meyer says: "Diversity of service in one location contributed much to the rapid growth of this enterprise. I started with one kind of service, the luncheonette, and when this was built up to the point where expansion was in order, I started two entirely different services, the restaurant and grill. I figured that people's tastes differ and

(Continued on page 139)

*A Glimpse of the Kitchen*

# Success Marks Premier of A. G. A. Talkie

"DOMESTICATING CUPID," the American Gas Association's new talking picture, made its bow to the public on February 5 at Boston, during the Fifth Annual Convention of the New England Gas Association.

Distinct success marked the premier. It was shown at the opening session of the second day's program, and made an excellent impression upon the assembly of gas company representatives. It was agreed by all who saw and heard it, that the film promises to become an impressive contribution looking toward future developments of domestic appliance sales, although the picture is designed for the general benefit of the gas industry.

This short romantic comedy in one reel, which runs ten minutes, has been produced by the Association for the use of members, many of whom have requested a film that is at once interesting and educational, depicting the gas business and its service in the home.

"Domesticating Cupid" now is ready for distribution to members and for release in theatres throughout the United States and Canada.

This picture will be circulated in two ways. Prints will be sold by the Association at a cost of $100 each. Companies desiring to buy prints should address all inquiries to the Association. Arrangements can be made to circularize prints at a cost of $5 for each 1,000 people who will see the picture. In addition, there will be slight incidental expenses to cover maintenance and shipping. The Association is also prepared to supply window and showroom posters and display cards announcing the picture if the demand warrants.

Members of the Committee responsible for the production of this film are confident that it will prove a most effective aid in sales promotion work and community education.

*Dad Explains Automatic Heat Control*

## "Domesticating Cupid" is Now Ready for Distribution to Industry

This A. G. A. film was many months in the making. In the mode of the moment it unfolds a pretty romance.

"Mary" the heroine, is the daughter of a humble home where domestic drudgery breeds discontent and fosters ambitions for a brilliant screen career. Dreams of future triumphs and intensive study of the movie fan magazines lead to the breaking of Mary's engagement with her ardent and worthy young suitor, "Don."

The young couple are seen in the act of breaking their engagement, surrounded by the inconveniences of coal range, ice box, and other antiquated equipment. Distress over the drudgeries of her home make matrimony look unattractive to Mary and she stands firm in her determination to become a popular idol.

Don takes his dismissal reluctantly and departs, the broken-hearted lover. Mary consoles herself in the intervals of house work by reading about home lives of her beloved movie stars in a favorite film magazine. As she dreams over the happy homes and lives of girls no smarter or more attractive than herself, the scenes in the story she is reading change into life-like action before her eyes, thus she sees emerging from the flat pages of her book the actual living stars themselves engaged in various domestic recreations and pursuits in their beautiful homes.

Mary's reveries with her favorites are rudely interrupted by the clamor of the telephone bell. The caller proves to be Don, whose voice is heard over the telephone, begging forgiveness and reconciliation and telling Mary that his mother wants her to come and see their new home. In the end Mary accepts and interesting complications appear imminent.

Mary is next seen arriving at

*Mother Emphasizes Convenience of Constant Hot Water*

Don's home where she is welcomed cordially by his father and mother and affectionately by Don himself. She repulses his attentions and feigns greater interest in the old folks. Don, in his embarrassment, gets red in the face and hot under the collar. Observing this, the father jokingly suggests that if he is too warm they can turn down the furnace. Mary, being unfamiliar with modern gas appliances, protests against the unnecessary bother of a trip to the cellar. Father, seeing he has started something, goes over to the thermostat and demonstrates. Whereupon the whole picture fades away and is replaced by an interesting and animated drawing of the current running from the thermostat to the cellar and turning out the gas in the furnace. During this animation the audience has time to observe a sectional view of the furnace in actual operation.

Mother interrupts in her anxiety to show Mary around the new home and forthwith conducts her to the kitchen while Don still tags along. Here, the two women have a sort of "Cook's Tour" from the new gas range with regulated heat, the gas refrigerator which is explained, and wind up at the sink where Mrs. Welling turns on the hot water to demonstrate its inexhaustable supply. Again the scene fades away and is replaced by brief but clear and interesting animation tracing the water to the cellar and illustrating the operation of the heater. Then Mrs. Welling's voice continues to describe her cellar and as she does so the real water heater appears on the screen followed by the incinerator and the gas-fired furnace. The group in the kitchen reappears, and the "Cook's Tour" being completed, they are seen to leave.

The story then resumes the love interest in a more encouraging way and concludes with the final embrace and fade out, during which father observes them in a mirror unnoticed by the lovers, but in full view of the audience."

This is the first release under a plan formulated by the Motion Picture Committee of the American Gas Association on the application of films to several branches of the industry.

## Annual Report of Consolidated Gas of N. Y.

IN his annual report to stockholders, made on February 25 last, George B. Cortelyou, president of the Consolidated Gas Company of New York, said:

"The aggregate taxes charged against the companies (gas and electric) during 1930 were $28,930,616.24, of which there were necessarily included in their cost of operation $28,824,177.43. This is an increase in the taxes chargeable to operations of $3,314,838.51 over 1929 or 12.98 per cent. The above stated taxes for 1930 absorbed 29.4 cents of each dollar of net earnings." On this subject Mr. Cortelyou said:

"The excessive and ever-increasing burden of taxation imposed by federal, state, county and municipal authorities has reached the stage of oppression and is, therefore, alarming. It has been aptly said that 'the power to tax is the power to destroy.' Apparently, many public officials are unaware or heedless of the steady trend of increasing taxation with its consequent retardation of economic activities.

* * *

"It is remarkable that so much agitation is evidenced by public officials respecting the desirability of reducing utility rates, but no agitation whatever towards the necessity of reducing taxes. And yet taxes continue to be one of the largest factors in the cost of utility service; a factor which must be collected from the customers in the rate charged them for such service. The companies are forced by law to act as collection agencies for the taxing authorities and by reason of such an unenviable position are forced to add 14.65 cents per thousand cubic feet, on the average, to the rate which would otherwise be required for gas, more than one-half a cent per kilowatt hour, on the average, for electricity and 7.29 cents per thousand pounds, on the average, to the rate which would otherwise be required for steam."

As the result of a reduction in rates, the number of customers using gas for heating was increased from 1,317 in 1929 to 2,080 in 1930.

During 1930 twenty-seven departments, with 1,556 employees, labored without a lost-time accident. 1930 showed a reduction in the number of such accidents of 42.3 per cent as compared with 1929.

In spite of adverse business conditions during 1930, the appliance sales and rental business of the affiliated gas companies represent the largest amount in the history of the companies.

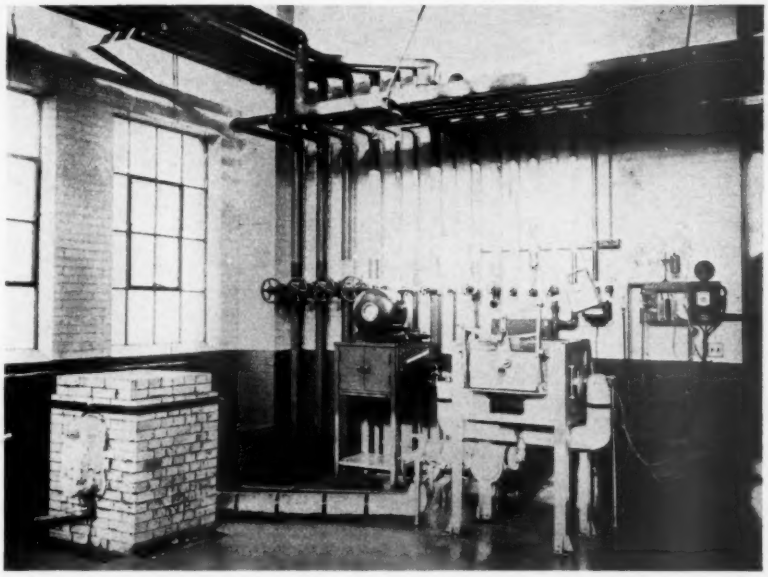
According to conservative estimates, 45 per cent of all automatic refrigerators sold in the territory served by our gas companies during 1930 were gas-operated. The Refrigeration Department sold 32,423 refrigerators during 1930, an increase of 60 per cent over 1929. At the end of 1930 more than 48,000 gas refrigerators were in use.

# A. G. A. Industrial Research In Burning Gas With Pre-Heated Air

GAS, as a form of potential heat, finds innumerable applications in industry. In many of these applications the expenditure of heat is enormous, and the flue gases are discharged because of high furnace working temperatures, with a relatively large sensible heat content. If a portion of this heat can be reclaimed and utilized, a material economy in the use of gas for industrial purposes will be effected. The apparent saving in fuel costs by utilizing this heat has led to the reclamation of waste heat by several methods, among which is the one involving the principle of recuperation. The subject of recuperation has been studied to a certain extent; however, there still exists a definite need for a complete investigation of the basic problem in order that the underlying principles may be more clearly established and their value determined. The general principles of the application and transfer of heat have largely governed recuperator applications in the past because of a lack of complete and definite information bearing on this subject.

In light of the above considerations, the Committee on Industrial Gas Research of the American Gas Association authorized an investigation of this subject and assigned the problem to the A. G. A. Testing Laboratory. The purpose of this research was to establish, first, fundamental information pertaining to the use of preheated air for the combustion of gas, and second, to secure information concerning the practical limits in the use of preheated air. It was not intended, at least in the earlier stages of the investigation, to study recuperator design and performance.

Preliminary results secured indicate that the saving to be realized is greater than that which can be attributed directly to the sensible heat added to the furnace input by pre-heating the air. In other words, the use of preheated air makes possible more efficient utilization of the potential heat energy supplied by the gas.



*View of Apparatus Used for Research in Burning Gas with Pre-Heated Air*

By JOHN CORSIGLIA

Assistant Chief Engineer, A. G. A. Testing Laboratory

Fundamentally, the problem revolves about the transfer and exchange of heat. With a given quantity of heat available in the form of gas for utilization under specified conditions, a certain furnace temperature will be realized, depending on the amount and constituents of the fuel gas, and the amount and temperature of the air supplied for combustion. It seems obvious, that if a portion of the heat required to raise a given air-gas mixture to its ignition temperature is carried by the air, a corresponding amount of heat in the gas will therefore be rendered available for effecting a higher furnace temperature. Recuperator installations have been made largely on this basis. The theoretical gain to be realized, of course, can be calculated, but it is the purpose of the investigation to determine whether or not such calculations can be substantiated. It is also intended to correlate any deviations from theory disclosed by actual tests.

Obviously, it would be impractical to study the operation of all types of furnaces with pre-heated air and such a measure would seem unnecessary to establish relations from which generalizations could be made. For the first portion of the study, a typical half muffle furnace used in steel treating was selected. It is provided with a low pressure (gas) combustion system which supplies an air-gas mixture of constant proportions to two furnace nozzles. The air-gas mixture discharged from these nozzles impinges

on a bed of refractory material. In order that the range of air pre-heating might not be limited by the heat available in the flue gases discharged from the furnace, a special furnace with suitable heat exchanging surface was provided to supply pre-heated air for combustion. Specially designed velocity thermocouples were used to secure true air-gas mixture temperatures.

The furnace was operated in the first series of tests with a neutral atmosphere (complete combustion with no excess of deficiency of air) with the air supplied at temperatures ranging from 75 degrees F. to 675 degrees F. Practical considerations, in the operation of the furnace and pre-heater used in this work, limited pre-heating to an air temperature of 675 degrees F., measured at the furnace. The temperature of the air as discharged from the pre-heater was, of course, considerably higher. Furnace temperatures ranged from 1900 degrees F. to 2400 degrees F., the operating limits specified by the manufacturer. The gas input was varied from 47,000 to 75,000 B.t.u. per hour. The use of an unloaded furnace seemed advisable for the preliminary work.

Equilibrium conditions were assured before recording essential data. When heating from a cold start, some twenty to twenty-four hours were required to reach equilibrium. This condition was maintained for a period of from three to six hours before recording the final readings. In a number of cases the furnace, together with other equipment, was kept in continuous operation for a period of a week. Considerable difficulty was experienced, due to the slight unavoidable variations in the pre-heated air and gas supply. These slight variations exerted a pronounced effect on the furnace atmosphere, thus extending the time required for complete test runs.

No difficulties were encountered in the way of lack of capacity or flash-back in handling the pre-heated air. This cannot be taken as conclusive evidence, however, since the furnace was operated using gas and air quantities considerably below its working rating. The pre-heating of air caused no appreciable deterioration of the diaphragm in the aspirating device, supplying the air-gas mixture to the furnace. This is explained by the fact that the design of this device is such that the diaphragm is maintained at a relatively low temperature by the cool gas stream.

As applied to the furnace used in this study thus far, operating with a neutral atmosphere, several important and very encouraging deductions can be drawn.

1. A definite increase in furnace temperature is realized with the same gas input when the air for combustion is pre-heated.

2. The increase in furnace temperature is more pronounced as the temperature of the pre-heated air is increased.

3. The increase in furnace temperature is considerably greater than that which would theoretically be expected from the heat carried by the pre-heated air. It appears, from the results of research, that the ignition velocity of an air-gas mixture varies approximately as the square of its absolute temperature. The change in the combustion process arising from this is believed to account for the greater increase in the furnace temperature. In one case, approximately 45 per cent of the furnace temperature increase is attributed to this change in the combustion process.

4. The saving in fuel consumption which can be realized by pre-heating the air is greater as the temperature of the pre-heated air is increased. The maximum saving in the limits of this study was approximately 16½ per cent.

Further work is being done with reducing and oxidizing atmospheres, particularly the former. This should disclose whether or not the results already secured are susceptible to generalization. Additional tests will also be made using various loads in the furnace so as to permit operation at a gas consumption near its rated capacity.

It would be premature to assume that information secured thus far may be generalized for any application. It is encouraging, however, that the results obtained on this furnace indicate that, aside from consideration of capital investment and operating cost for recuperation, appreciable gains beyond those currently expected may be realized. There is no doubt but that recuperation, by use of waste heat in flue gases for pre-heating air, can be justified in many instances. A better knowledge of the underlying and controlling factors should make for more widespread applications leading to a reduction in operating cost of industrial heating operations. This should in turn be reflected in a greater use of gas as a fuel for heating in high temperature work.

## Oklahoma Temporarily Cuts Gas Rate

A TEMPORARY order has been issued by the Oklahoma Corporation Commission ordering a reduction of 10 cents per 1000 cu.ft. in the gate rate and a corresponding cut in the gas distribution rates in 46 Oklahoma towns served with natural gas by the Oklahoma Natural Gas Corporation. The order is made effective for February, March and April pending the outcome of a continuation of the investigation by the Corporation Commission into the rates charged by the company.

The Oklahoma Natural Gas Corporation applied to the Corporation Commission for reversal of the temporary order, but this was denied. The company then filed an application with the commission for authority to appeal to the State Supreme Court and for authority to post a supersedeas bond to suspend operation of the temporary order pending final determination of the present gas rate investigation. The application to appeal was granted, but the application for supersedeas was denied. The Supreme Court also denied application of the company for supersedeas. The company claims that this proposed reduction of rates would make it extremely difficult to continue the present high standard of service to the cities and towns in Oklahoma and would reduce the net returns of the company to the danger point. Several cities served by the Oklahoma Natural Gas Corporation have been attempting to secure a reduction in gas rates and they are being represented by city officials or attorneys before the Corporation Commission in the rate investigation.

## Gas Measurement Course to Open in Oklahoma

DATES have been announced for the eighth annual gas measurement short course to be held under supervision of the College of Engineering, University of Oklahoma, Norman, April 21, 22, and 23. The Oklahoma Utilities Association and the Oklahoma Corporation Commission also cooperate with the university in putting on this short course. The course offers instruction and practical demonstrations in connection with the reading, maintenance, and repair of gas meters and other gas measuring equipment.

Manufacturers of gas measuring equipment have exhibits in connection with the school and participate in the program. Professor W. H. Carson, of the university faculty, is director of the course and instructors in the School of Engineering and experts from the gas companies and gas equipment concerns conduct the classes and demonstrations.

# Thirty-five McCarter Medals and Other Awards Presented to Large Group

FIFTY-SIX employees who received awards for conspicuous bravery and the saving of human life were the central figures at the annual dinner of the Quarter Century Club of the Consolidated Gas Company of New York and affiliated Gas Companies, held at the Hotel Roosevelt, New York, N. Y., on February 17.

George B. Cortelyou, president of the company, presided, and welcomed seventy-two new members into the club. Membership in the organization, which totals 821, is limited to those who have completed twenty-five years or more of continuous service with the company.

The Consolidated Gas Company's meritorious service awards, consisting of four silver medals, thirteen bronze medals, and four certificates of honorable mention, were presented by Walter R. Addicks, senior vice-president. The McCarter Award, which is given by the American Gas Association for the saving of human life by the prone pressure method of resuscitation, was presented to thirty-five employees by Colonel Oscar H. Fogg, vice-president, commercial relations. Colonel John Stilwell, vice-president, industrial relations, presented Quarter Century Club buttons to the seventy-two new members.

In extending his personal thanks to the employees who had distinguished themselves, either by acts of resourcefulness and bravery or by length of service, Mr. Cortelyou said that it was apparent that New York was served by a body of strong, upstanding, self-reliant employees who are a credit to the community.

"The stability of the gas industry is nowhere better illustrated than in the service records of its employees," he stated. "Many of them have known no other employer. They have grown up in the industry, have given it the best years of their lives, and in return they may be assured that the industry appreciates their loyalty and will do everything in its power to safeguard their interests.

"We are all co-workers in a common cause—that of furnishing to the people of this city a constant and dependable supply of our product at the lowest price compatible with good service. To accomplish this the cooperation of every one is essential.

"But this is only the physical side of our business. There is another side. To save life, to prevent accidents, to protect property, to promote safety, to forestall or to control emergencies—these are matters lying outside the strict mechanics of our business but they are nevertheless matters of the highest and gravest importance, in which the men and women of our industry have rendered distinguished service, often at the peril of their own lives.

"It is a fact worthy of repetition that such a large number of employees of

*F. R. Ullman*

*Ultan McCabe*

*Joseph Spina*

*Chas. Schaefer*

*Murray Taylor*

*Frank Jurash*

*J. F. Cassidy*

*Harry Bennett*

*John Kiely*

*Edward Graver* *Harry Broomhead* *Andrew O'Rourke* *L. Gilroy*

*E. A. Stelben* *John Dooley* *W. I. Doxey* *S. McCarthy*

*F. Paviglianti* *Jerome O'Conner* *C. Harrington*

*David Algave*

long standing not only indicates good relations between company and employee, but in its larger aspect is an assurance to the people of this city that their utility service is in safe, experienced and competent hands. Good service cannot be renderd by a shifting and impermanent body of employees. It can be rendered only by men and women who know their jobs; and one of the greatest assets that any company can have is the knowledge and ability stored up in its employees as the result of training and experience. The membership button, therefore, is a symbol of service, and means that its wearer has not only received the commendation of his company but is entitled to the confidence of the community."

Acts of rare personal bravery, both in and out of line of duty, were rewarded by presentation of the Meritorious Service Awards. The awards were presented for the saving of a child from drowning, the saving of lives in accidents and for preventing catastrophes by quick thinking and sure action at the risk of personal danger.

Those receiving the meritorious service awards were as follows:

*Silver Medal*

Robert J. Crowe, Frank Donahue, Sr., and Wm. T. Reilly of the Consolidated Gas Company of New York; and Rudolph Kohlroser of The Astoria Light, Heat and Power Company.

*Bronze Medal*

J. A. Alexander, John J. Dillon, Wm. B. Drugan, Lawrence Everston, Jacob Feldman, Edward Graver, Joseph R. Natterer, Angelo Passero, Frederick Pitman, Joseph Raisbeck, Chas. Schaefer, Edw. W. Schneider, and Joseph J. Somers of the Consolidated Gas Company of New York.

*Honorable Mention Certificate*

John Hein, John J. Hoey, Frank Lutter, and David J. McQuade of the Consolidated Gas Company of New York.

In presenting the McCarter Awards, Colonel Fogg commended the employees for their prompt exercise of intelligence and skill, and stated that he knew from personal knowledge that the McCarter Certificate was as much to be cherished as the Medal.

The McCarter citations were as follows:

*McCarter Bar*

Harry Bennett, and F. R. Ullman of the Consolidated Gas Company of New York.

*McCarter Medal*

D. Algave, J. A. Alexander, Harry Broomhead, Linden Burchell, John Cassidy, Daniel Doherty, John Dooley, Wm. I. Doxey, Wm. B. Drugan, Jacob Feldman, Matthew Galligan, Edward Graver, Cornelius Harrington, Frank Jurash, John T. Kiely, Frank Lutter, Ultan McCabe, Sylvester McCarthy, Jerome O'Connor, Andrew O'Rourke, Frederick A. Reiss, Chas. Schaefer, John Smallberg, Joseph Spina, Peter Stark, Edward Stelben, and Murray Taylor of the Consolidated Gas Company of New York: and F. Paviglianti, of the Northern Union Gas Company.

*McCarter Certificates*

John A. Bart, John Foley, Luke Gilroy, J. H. Steffens, and Wm. Tobin, of the Consolidated Gas Company of New York.

Among those receiving Quarter Century Club buttons were Robert E. Livingston, director of information; C. H. Stevick, assistant to vice-president, Industrial Relations; D. S. Hudson, assistant engineer of construction; Dr. A. Vernon Clark, the company's medical director, and R. C. Miller, vice-president and general manager of the National Coal and Coke Co.

The American Gas Association has awarded four McCarter Bars, seventy-six McCarter Medals, and thirteen McCarter Certificates to employees of the Consolidated Gas Company of New York and its affiliated companies since the establishment of the Award through the generosity of Thomas N. McCarter, president of the Public Service Electric & Gas Co., Newark, N. J.

*Fred K. Reiss*

*Daniel Doherty* *Wm. B. Drugan* *Frank Lutter*

*J. Smallberg* *Peter Stark* *Jacob Feldman* *Matthew Galligan*

# Tampa Gas Company Dedicates New Building

DEDICATED to the service of the people of Tampa, Florida, the new headquarters and office building of The Tampa Gas Company was formally opened January 24.

The new building, completed after nearly ten months of construction, was transformed into a colorful bower of flowers and evergreens, which served to enhance the built-in beauty of the interior architectural decorations. Ten thousand Tampans catching their first glimpse of the spacious lobby, its massive pillars and carved cornices, its polished terrazzo surfaces and glittering crystal ornaments, paid a spontaneous tribute of applause to the building and its builders.

Officials of the gas company, including President John Gribbel, and Vice-President D. J. Collins, both of Philadelphia, stood with local company officers to greet the public as it came to inspect the company's new home.

A flag-raising ceremony officially dedicated the building to public service. There was no heralding of this ceremony in advance. Officials felt that the occasion, on which the American flag was to be unfurled, was not a moment to be touched with any commercial aspect whatever, and in consequence only a little group was present when Old Glory, to the strains of the *Star Spangled Banner,* was raised aloft to fling its colors out in a January breeze.

The American Gas Association, through C. E. Paige, president, and Alexander Forward, managing director, sent the following telegram to Mr. Gribbel:

"American Gas Association sends congratulations on opening of splendid new building providing improved facilities for better service to your customers. May it house a rapidly expanding business."

"We submit this building to you," said Mr. Gribbel, in a statement to the public, "as our contribution to the greater and more beautiful Tampa which is just before us."

*New Home of Tampa Gas Company*

"In 1930 the company felt the desire to do something worthwhile to add to the city's constructive recovery," President Gribbel said. "It began the erection of this modern building to give employment to workers, to stimulate civic pride and spirit, to demonstrate that 'now is the time to build' and to provide the best possible facilities for promptly, conveniently, and fully serving its customers."

Mechanical equipment of the building is the last word in modernity, including the air cooling and purifying system, which will pour cooled and washed air into the structure from basement to topmost office, to the utmost comfort of office workers in midsummer. The gas company's own product will heat the boilers which supply steam in midwinter. Efficient to a high degree, the heating system will heat the entire building in 17 minutes, from a cold start on one of these January mornings when Florida's normal temperatures have been dispelled by the mercury's falling below 40 degrees.

Externally, the building presents an interesting study in marble, Florida Travertine rock, and terra cotta, with silvery marquises over the doorways. The sidewalks surrounding the building are of polished terrazzo, of the same pattern as the interior floors, in part.

Entering the spacious lobby, one finds on the floors a more intricate pattern of terrazzo, under a ceiling paneled and decorated in blue, with fanciful skylights of colored glass. Light from these is relayed into the basement through special lens glass set at intervals in the floor of the lobby.

Artificial lighting arrangements in the lobby are elaborate. Principally the light will come from half a dozen or more magnificent crystal lighting fixtures, modernistic in style, which were specially designed.

Additional indirect lighting fixtures of standard style light up corners in the rear, beneath the mezzanine floor.

# Purdue Students Hear Story of Gas

*A. Gordon King*

A. GORDON KING, service engineer of the American Gas Association, delivered the first of a series of addresses by outside speakers before 500 senior and graduate engineering students at Purdue University, Lafayette, Ind., Feb. 3. This program of addresses was arranged by Dr. A. A. Potter, dean of engineering at Purdue, and the fact that the American Gas Association was called upon to supply the first speaker is regarded as a distinct honor to the association and tribute to Mr. King.

Purdue University offers a gas engineering course under the auspices of the Indiana Gas Association and Dean Potter, Professor Peffer, head of the School of Engineering, and R. B. Leckie, Professor of Gas Engineering, requested that a picture of the gas industry and its various ramifications, should be presented to the students, including the manifold uses to which the product is put.

Mr. King's address, therefore, was planned to incorporate something about the history of the gas industry; the methods in use for manufacturing gas; something about the natural gas industry, including methods used for transmitting gas; the field for the use of gas in the home and industry as well as the growth of the industry during recent years.

The speaker showed how the gas industry had its inception in the experiments of the early alchemists. He referred to its rich historical background which includes the transmission of natural gas through bamboo pipes by the Chinese; the manufacture of coal gas by the Rev. Dr. Clayton, in England, in 1660, and its first application to lighting the home by

## Interested Group Forms A. G. A. Chapter at Lafayette.

Murdock, in 1792, and the research experiments of other contemporary scientists and the fact that today there is sold in the United States two and one-half trillion cu.ft. of manufactured and natural gas.

The different methods of manufacturing gas were briefly described and the broad economic factors controlling their selection were outlined, including the weight which must be given to the available raw materials, as well as the various chemical processes involved in making the resultant gas suitable in all particulars for the customer's use.

A particularly interesting point was the manner in which such an old established industry has weathered successfully so many economic changes and encountered such diverse competition. Originally conceived as a lighting agent to replace oil lamps and candles by means of the open flame burner and later by means of Von Auer's mantle, and Bunsen's burner, it fought hard against the competition of its newly discovered rival—electricity.

Rapidly adapting itself, the industry re-entered the lists as a heating agent and was successfully applied to domestic cooking, water heating, space and house heating as well as numerous industrial applications. These are but a part of the field today—some of the recent and more interesting developments, in which active research still continues, are in connection with domestic refrigeration, winter house heating and summer air conditioning, largely by dehumidification.

Just as this production of gas from coal and oil has its romance, Mr. King pointed out, so too has the production of natural gas and its subsequent transmission hundreds of miles across the continent from the fields to the centers of civilization.

The speaker predicted that the time ultimately will come when burning raw coal as a fuel, with its total destruction, and loss for all time of its valuable constituents, will be regarded as a wasteful, if not a criminal act. It must first be converted to a gaseous fuel with recovery of all available products and the complete abolition of smoke in our cities. Mr. King also clearly stressed the fact that a great and ever-growing industry is founded upon, and daily utilizes, the fundamental laws of physics and chemistry and looks to our technicians for further assistance.

Mr. King also briefly addressed Professor Leckie's class on the subject of gas holders and storage. Following this, and in their own time, the students assembled to consider the formation of a student chapter of the American Gas Association. D. Gordon Halloway, who had done most of the original preparatory work, was elected chairman, the members present were elected charter members, and the various officers were elected and committees appointed to investigate the numerous questions raised and report back at a subsequent meeting.

During his stay in Lafayette, Mr. King also addressed the Rotary Club of which K. F. Dickinson, manager of the Northern Indiana Public Service Company, at Lafayette, is president.

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## Fort Worth Referendum on City Ownership

A STRAW vote on the question of the City of Fort Worth, Texas, taking over the gas properties now serving the city was held January 27. The vote for taking over the properties was 8,075 with 4,511 against. This was a total vote of 12,586. There are about 35,000 voters in Fort Worth.

The election was merely an expression of opinion on the part of the voters as to whether they would favor the city going into municipal ownership in case the Council could secure a supply and a responsible pipe line company to bring the gas to the city gates.

In the minds of most of the voters the real issue seemed to be lower rates, and not municipal ownership, as many people held the opinion that a favorable vote would mean giving the City Council a club over the gas company. Leaders of both sides of the question, therefore, were of the opinion that the vote did not indicate the real sentiment of Fort Worth on the question of municipal ownership.

# Affiliated Association Activities

## New England Gas Association

*M. B. Webber*

AT the annual meeting of the New England Gas Association held in Boston, February 4 and 5, M. B. Webber was elected president. Mr. Webber has an enviable record of service to the industry through his activities in not only the local association but the American Gas Association as well. He has been the governor of the sales division of the New England Gas Association for two years and was a leader in the launching of its highly successful advertising campaign serving as the first chairman of the managing committee for two years. He also has been a director, and vice-president of the New England Gas Association.

The following officers, directors and divisional officers were also elected: Vice-presidents, I. H. Haddock, Cambridge, and D. M. DeBard, Boston; treasurer, F. D. Cadwallader, Boston; executive secretary, C. D. Williams, Boston.

Directors-at-large, H. R. Sterrett, New Haven, Conn., and A. S. Hall, Springfield, Mass.; chairman operating division, F. M. Goodwin, Boston; chairman accounting division, C. N. Alexander, Boston; chairman industrial division, Chas. H. O'Donnell, Boston; chairman manufacturers division, A. M. Slattery, Boston; chairman sales division, J. J. McKearin, Lowell, Mass.

Secretary-treasurer, accounting division, Otto Price, Boston; operating division, P. R. Buchanan, Hartford, Conn.; manufacturers division, J. H. McPherson, Boston; industrial division, H. J. Brehme, Springfield, Vt.

*Left to Right, seated—I. T. Haddock. M. B. Webber, H. Vittinghoff, D. M. DeBard, C. D. Williams. Standing—C. N. Alexander, J. J. Quinn, H. R. Sterrett, F. M. Goodwin, C. J. O'Donnell, A. M. Slattery, J. J. McKearin*

## Oklahoma Utilities Association

THE gas division sessions of the Oklahoma Utilities Association's thirteenth annual convention, to be held in Oklahoma City, March 10 and 11, promise much of interest to the natural gas industry. The program committee has endeavored to select subjects of particular importance and interest at this time and to assign them to speakers especially qualified to present them.

Prominent among the topics to be presented are the following: "The Gas Engine in Industry," A. J. Schlosser, Tulsa, Okla.; "Determining the Open Flow of Gas Wells," E. C. Cortelyou, Bartlesville, Cities Service Gas Company; "Utilization of Liquefied Petroleum Gases by Utilities," O. M. Setrum, Detroit, Mich., manager, Philfuels Company; "Organizing for Effective Appliance Installations and Services," S. A. Lipscomb, Little Rock, Ark., Arkansas Natural Gas Corp.; "Good Practice in Utilization of Fuels," H. A. Atwater, Kansas City, Mo., chief engineer, Combustion Equipment Co.; "Natural Gas Progress in 1930," H. J. Hoover, Cincinnati, Ohio, editor, *Natural Gas*.

J. F. Orr, of Houston, Texas, commercial manager, United Gas System, will speak as a representative of the American Gas Association, substituting for N. C. McGowen, vice-president. C. B. Day, Blackwell, Okla., district manager, Consolidated Gas Utilities Company, will discuss the Southwestern Gas Measurement Short Course, of which the Oklahoma Utilities Association is one of the sponsors, to be held at the University of Oklahoma, Norman, April 21, 22, and 23 this year.

A motion picture entitled, "Building an Empire," which shows construction of twenty and twenty-four inch lines to handle gas from Oklahoma City field gushers, will be an outstanding feature of the program. This picture is provided by the Cities Service Gas Company, and will show gas well blowing in, survey and clearing of right-of-way, train loads of pipe, detail of line construction, building of highway, railroad and river crossings and bridges, and the building and operation of a compressor station. This picture, in fact, will be a short course in the gas industry from bringing in of a well to delivery to the distributing company. It will be presented by George H. Baird, Bartlesville, general superintendent of operation, Cities Service Gas Company.

Mr. Orr's address will be the contribution of the Gas Division of the Association to the general session program on the morning of March 10, which will be the only general session for this year's Oklahoma convention. By holding general sessions to the minimum and eliminating social and entertainment features almost entirely, the 1931 convention of the Oklahoma Utilities Association is expected, because of the strength of the division programs, to be among the most valuable in the history of this organization.

The Oklahoma City Chamber of Commerce is giving a dinner on the night of March 11 in honor of W. A. Jones, New York, president of the National Electric Light Association, one of the convention speakers. At this dinner presentation of a McCarter Medal for life saving will be made to W. A. Beam, of the Oklahoma Natural Gas Corporation, Tulsa.

T. H. Steffens, of Sand Springs, Okla., president of the Sand Springs Railway Company, is president of the Oklahoma Association this year. S. I. McElhoes, Oklahoma City, vice-president of the Southwestern Light and Power Co., is first vice-president and under the system of rotating the presidency among the four utility divisions of the association is in line to head the organization during the coming year. W. R. Emerson of the Oklahoma Gas and Electric Company, is treasurer and E. F. McKay, manager.

## New Jersey Gas Association

THE New Jersey Gas Association will hold its twentieth annual convention on Friday, March 27, at the Stacy-Trent Hotel, Trenton, N. J.

An outstanding program has been prepared in which nationally known leaders of the gas industry will take part. The morning session will include addresses by Clifford E. Paige, president, and Alexander Forward, managing director of the American Gas Association. Professor M. S. Viteles, of the University of Pennsylvania and director of personnel research of the Philadelphia Electric Company, will talk on "Training Technical Employees"

and Henry M. Brundage, vice-president of the Consolidated Gas Company of New York, will deliver an address on "Super-standardization."

During the afternoon session, an address entitled "The Gas Industry from an Investment Viewpoint" will be presented by a representative of a prominent investment firm. This will be followed by a sales promotion symposium. Lyle C. Harvey, of the Bryant Heater and Manufacturing Company, will talk on "House Heating"; Merle Abbott, of Glenwood Range Company, will present a paper on cooperation between utilities and manufacturers; Richard N. Lewis, of the Ruud Manufacturing Company, will outline plans for "Building the Domestic Load," and F. D. Pembleton, of Public Service Electric and Gas Company, will talk on "Sales Enthusiasm."

The officers of the Association are Chester Grey, Altantic City Gas Company, president; Louis Stoecker, Public Service Electric & Gas Company, first vice-president; John D. Alden, Jersey Central Power and Light Company, second vice-president; and Herbert E. Cliff, Public Service Electric and Gas Company, secretary-treasurer.

## Illinois Gas Association

THE Illinois Gas, Illinois State and Illinois Electric Railways Associations will meet jointly for their annual convention in Springfield, Illinois, March 12 and 13. A general session will be held on the morning of the first day at which C. E. Paige, president of the American Gas Association, will deliver an address.

The Illinois Gas Association will convene for a separate meeting in the afternoon of March 12 for which an interesting and timely program has been arranged. A paper, "Therm Basis of Charging for Gas," will be presented by E. R. Weaver of the United States Bureau of Standards. B. J. Mullaney, of The People's Gas Light and Coke Co., will address the gathering on "The Gas Company and Its Employees." The third paper, on "A Promotional Program for House Heating," will be read by Lyle C. Harvey of the Bryant Boiler Company, Cleveland, Ohio.

The meetings on March 13 will be devoted to a conference on the general subject, "Extending Utility Services to Rural Areas." B. J. Mullaney, vice-president of The Peoples Gas Light & Coke Company, and past president of the American Gas Association, will set forth the attitude of the gas industry as it relates to agriculture at this conference.

## Maryland Utilities Association

THE annual meeting of the Maryland Utilities Association is scheduled for Friday, April 10, at the Lord Baltimore Hotel, Baltimore, Md.

An interesting program is being prepared. Meetings of the electric, gas, and transportation groups will be held in the morning, a general meeting in the afternoon, to be followed by a business session at which officers and directors will be elected for the ensuing year. A banquet, with entertainment features, will be held in the evening, followed by dancing.

At the business session the report of the Committee on Revision of Constitution and By-Laws will be discussed and new constitution and by-laws submitted for adoption.

Inasmuch as April is a busy hotel month the members and guests are advised to make reservations early.

R. E. Town of Frederick, Maryland, is the president of the Maryland Utilities Association and D. E. Kinnear of Baltimore is the secretary.

## Convention Calendar

**Pacific Coast Gas Association, Technical Section Conference,**
Los Angeles, Calif.
March 5 and 6.

**Oklahoma Utilities Association,**
Oklahoma City, Okla.
March 10 and 11.

**Illinois Gas Association,**
Springfield, Ill.
March 12 and 13.

**National Home Service Conference,**
Edgewater Beach Hotel,
Chicago, Ill.
March 23 to 27.

**New Jersey Gas Association,**
Stacey Trent Hotel,
Trenton, N. J.
March 27.

**Empire State Gas & Electric Association, Gas Section,**
Briarcliff Lodge, N. Y.
April 2 and 3.

**A. G. A. Distribution Conference,**
St. Nicholas Plaza Hotel,
Cincinnati, Ohio.
April 8, 9, and 10.

**Maryland Utilities Association,**
Lord Baltimore Hotel,
Baltimore, Md.
April 10.

**Mid-West Gas Association,**
Julian Dubuque Hotel,
Dubuque, Iowa.
April 13 to 15.

**Missouri Association of Public Utilities,**
Excelsior Springs, Mo.
April 16, 17, and 18.

**Southwestern Gas Measurement Short Course,**
Norman, Okla.
April 21 to 23.

**A. G. A. Accounting Conference,**
Stevens Hotel,
Chicago, Ill.
April 23 and 24.

**Pennsylvania Gas Association,**
Galen Hall,
Wernersville, Pa.
April 28 to 30.

**Chamber of Commerce of United States,**
Atlantic City, N. J.
April 28 to May 1.

**A. G. A. Executive Conference,**
Ambassador Hotel,
Atlantic City, N. J.
May 1 and 2.

**National Fire Protection Association,**
Toronto, Ont.
Week May 11.

**A. G. A. Natural Gas Department,**
Peabody Hotel,
Memphis, Tenn.
May 11 to 14.

**Institution of Gas Engineers,**
London, England.
June 2, 3, and 4.

**Canadian Gas Association,**
Montreal, Quebec.
June 4 and 5.

**National Electric Light Association,**
Atlantic City, N. J.
June 8 to 12.

**Southern Gas Association,**
Chattanooga, Tenn.
June 9, 10, and 11.

**Advertising Federation,**
New York, N. Y.
June 14 to 18.

**A. G. A. Domestic Appliance Course,**
Testing Laboratory,
Cleveland, Ohio.
June 15 to 20.

**Pacific Coast Gas Association,**
San Francisco, Calif.
September.

**American Electric Railway Association,**
Atlantic City, N. J.
September 26 to October 2.

**American Gas Association,**
Atlantic City, N. J.
October 12 to 16.

**Bituminous Coal Conference,**
Pittsburgh, Pa.
November 16 to 21.

## Pennsylvania Gas Association

AS this issue of the A. G. A. MONTHLY goes to press, plans are being made for the annual meeting of the Pennsylvania Gas Association to be held at Galen Hall, Wernersville, Pa., April 28-30. The Program Committee, headed by T. Warfield McDonald, vice-president and general manager, Pennsylvania Gas & Electric Co., York, Pa., plans to follow the ideas so successfully employed at the 1930 convention.

Papers will be submitted on accounting, new business, production and distribution so that the program will be well-rounded and of interest to all gas men.

Ample entertainment is assured through a committee headed by M. N. Bailey, of John J. Griffin & Company, Philadelphia.

## Wisconsin Utilities Association

THE annual meeting of the Accounting Section of the Wisconsin Utilities Association will be held in Racine, Wisconsin, May 28 and 29, according to announcement made by John N. Cadby, executive secretary. The program for this gathering will be announced as developed.

## Mid-west Gas Association

THE annual convention of the Mid-West Gas Association will be held at the Julien Dubuque Hotel, April 13 to 15, Dubuque, Iowa. An interesting and timely program has been planned for the morning and afternoon sessions of the two days.

The first morning session will be preceded as usual by a meeting of the officers, council and past presidents. At 10 o'clock the convention will be opened with an address of welcome to be acknowledged by George McLean. A message from the American Gas Association will follow under the title, "What's Ahead for the Gas Industry," to be delivered by Alexander Forward, managing director. "Our Relations with the Public in Communities Served," will be discussed by John Learned, Don Barnes and George Lee. The session will be closed with reports of the secretary, auditing committee and nominating committee and the election of officers.

The president, J. M. Drabelle, will open the afternoon session with a resumé of the Technical and Distribution Conference and Meter School. W. I. Battin of Chicago will present a paper on "Natural Gas Distribution and Its Problems," to be followed by another, "Experiences and Developments on Changing Over Consumers' Equipment," by Fred J. Gunther, of Lincoln, Neb. On the second day, April 14, the following papers will be presented: "Developing Gas Load Through Water Heating" by F. A. Lemke, of Pittsburgh; "Educating the Organization Employees in Manufacture, Distribution, Utilization and Specific Duties," by Lester Eck, of Minneapolis; "Training the Organization in House Heating," by Lyle Harvey, of Cleveland, and "Building Load Quickly with Conversion Burners," By M. L. Roberts of Buffalo. There will be an address on "Customer Ownership," the speaker to be announced later.

The Association's representatives on A. G. A. Sectional Managing Committees will submit their reports.

## Missouri Association of Public Utilities

THE annual convention of the Missouri Association of Public Utilities will be held April 16, 17 and 18 at Excelsior Springs, Mo. Convention headquarters will be at the Elms Hotel. H. M. Patton, of St. Louis, president of the association, will preside at the business sessions.

Several nationally-known speakers and an "open forum" are on the program. The Program Committee is composed of the following members: Dudley Sanford, St. Louis County Gas Co., Webster Groves; H. H. Kuhn, Kansas City Power & Light Co.; L. W. Helmreich, Capital City Water Co., Jefferson City; H. G. Wehnert, Laclede Gas Light Co., St. Louis.

The members of the Entertainment Committee arranging the entertainment features are: Hermann Spoehrer, Union Electric Light & Power Co., St. Louis, Chairman; Paul C. Ford, Kansas City Gas Co.; B. W. Frauenthal, St. Louis Public Service Co.; J. B. Rogers, Missouri Power & Light Co., Excelsior Springs; John P. Casey, Graybar Electric Co., St. Louis.

## Empire State Gas and Electric Association

THE Gas Section of the Empire State Gas & Electric Association will hold its annual conference at Briarcliff Lodge, Westchester County, on April 2 and 3. A program of timely technical papers has been arranged.

The Lodge is a beautiful resort hotel in the Westchester hills, reached from the Ossining or Scarborough Station, Hudson River Division, New York Central Railroad.

On Thursday, April 2, the following subjects are scheduled for discussion: "Bunker Oil for Water Gas Manufacture," "Dust Treatment of Coke," "Dealer Cooperation in Coke Sales," "Washed Coal for Better Coke," "Coke Preparation," "Flexibility of Coke Oven Plants," High and Medium Pressure Regulators," "Refrigerator Servicing," and "Locked Meter Periods."

At the sessions to be held Friday, April 3, the subjects will be: "Operating Problems with Mixed Natural and Manufactured Gas," "Economics of Distribution in Small Districts," "Economics of Long Line Transmission of Gas," "Semi-Chrome Leather for Meters," "Prover Tests on Displacement Meters," and "Tests on High Pressure Meters."

## Pennsylvania Natural Gas Men's Association

AT the February dinner meeting of the Pennsylvania Natural Gas Men's Association in Pittsburgh, D. W. Chapman, manager of the industrial gas sales department of The Peoples Gas Light and Coke Company of Chicago, was the principal speaker. Mr. Chapman spoke on the subject, "Industrial Gas Development and Policies," stressing in particular the ever-increasing need for research by gas laboratories as a basis for continued progress in the highly competitive industrial gas field.

E. D. Milener, secretary of the Industrial Research Committee of the American Gas Association, and Henry O. Leobell, president of Surface Combustion Company, both complimented Mr. Chapman on the thoughts expressed and gave the Association members the benefit of their additional comments on the necessity and advantages of intensive research work as a pre-requisite for the highest development of the gas industry.

J. J. Digman of the industrial gas department of the Public Service Company of Illinois outlined the origin, history and operation of the Mid-West Industrial Gas Sales Council, stressing the benefits derived by the various utility company representatives from the bi-monthly all-day sessions of the Council.

The Pennsylvania Natural Gas Men's Association was particularly fortunate in having as their guests at this meeting the members of the Managing Committee of the Industrial Gas Section of the American Gas Association, which had had its sessions in Pittsburgh that same day.

## Arizona Utilities Association

THE annual convention of the Arizona Utilities Association will be held April 9-11 at the Arizona-Biltmore Hotel, Phoenix, Arizona, according to an announcement made by J. S. Arnold, secretary.

The Pacific Coast Gas Association participates in the Arizona convention to the extent of assisting with the arrangement of the gas program.

## A. G. A. Prospectus for Exhibition Mailed

THE prospectus for the thirteenth annual exhibition of the American Gas Association was mailed last month to our manufacturer company members.

The rules and exhibit plan should be read carefully before selecting space and special attention given to the change in layout and booth numbers, segregation of exhibits, limitations on back and side walls, and locations where gas, water and electric services are available.

Space will be reserved for exhibitors in the order of receipt of applications, no reservations being accepted prior to the mailing of the prospectus; the committee will formally allot space on April 15, giving full consideration to all factors affecting the individual exhibitor and in the interests of the exhibition as a whole.

# Personal and Otherwise

*H. B. Rust*

**H. B. Rust,** president of the Koppers Company, received the honorary degree of doctor of engineering from the Syracuse University at a special ceremony conducted in his office in the Koppers building, Pittsburgh, Pa. Mr. Rust, who is a member of the American Gas Association, is the fourth who has received the honorary degree of doctor of engineering from Syracuse.

**W. A. Kohlhoff,** gas engineer of the Pacific Gas and Electric Company for the past ten years, has been appointed sales engineer of the Hydrauger Corporation, Ltd.

**Jesse R. Stetser** was elected a director of the Roberts and Mander Stove Company at a recent stockholders meeting.

**Samuel Whitman,** former manager of the Paducah, Ky., Gas Company, has been appointed general manager of the Sioux Falls Gas Company in South Dakota.

**J. B. Johnson,** chief, material branch, War Department, Wright Field, Dayton, Ohio, has been awarded the Morehead Medal of the International Acetylene Association.

**Harriet C. Brigham** became director of the Home Service Department of the Oklahoma Gas and Electric Company upon the resignation of Miss Ruth Van Sant.

**G. W. Baughn** has been appointed superintendent of distribution of the Portsmouth, Ohio, Gas Company. Mr. Baughn was formerly connected with the Lake Shore Gas Company, Ashtabula, Ohio.

**Miss Esther Lee,** new business department of The Brooklyn Union Gas Company, Brooklyn, N. Y., annexed the girls' championship in a recent bridge tournament.

**S. H. Osterhoudt** has been appointed general manager of the Union Gas and Electric Company, Bloomington, Ill., to succeed R. J. Rutherford, resigned.

**P. F. McEnaney** has been appointed eastern sales manager of the Stacey Manufacturing Company, Cincinnati, Ohio.

**Edward A. Bowen** has been appointed manager of the Ohio properties of the Ohio Gas Light and Coke Company.

**Vernon Frank Parry,** until recently connected with the Combustion Utilities Corporation of New York City in a research capacity, has assumed his duties as lecturer in the chemical engineering department in the division of industrial science of the graduate school of the University of West Virginia. Mr. Parry is a member of the American Gas Association and the American Chemical Society.

**Robert H. Patterson** has taken over the management of the Woburn, Mass., Gas Light Company, succeeding Raymond C. Brehaut, who resigned to accept a position with the Washington Gas Light Company, Washington, D. C.

**E. A. Lewis,** formerly affiliated with the American Gas and Electric Company, has just been named general manager of the Atlantic City Electric Company. Mr. Lewis succeeds C. H. Howell, who will join the general staff of the American Gas and Electric Company, which is the parent organization.

**John J. O'Connell,** former manager of the Amherst Gas Company, Amherst, Mass., has been appointed manager of the Pittsfield Electric Company.

**L. L. Cogdell,** formerly in charge of sales crew on domestic gas heating for the Pacific Gas and Electric Company's San Francisco division, has joined the sales staff of H. R. Basford Company, Northern California manufacturers' representative and agent for Ruud heaters, Tappan ranges, Sprague meters and representing other manufacturers of gas appliances.

**George A. Wieber** has been appointed commercial manager of the Glens Falls Division, New York Power and Light Corporation, succeeding E. A. Brand, who has been transferred to the Buffalo office of the Niagara Hudson System.

**Nicholas Elbogen,** gas sales engineer of the Derby Gas and Electric Company, Derby, Conn., is the father of a "new gas recruit," Robert Malcolm, born February 4.

**R. G. Miller** has resigned his position with the Public Service Company of Colorado, Denver, to accept a post as supervisor of gas installations for Springfield Gas and Electric Company, Springfield, Mo.

**H. C. Scheidemantel,** Youngstown, Ohio, recently was appointed chemist at the city water works. Mr. Scheidemantel has been associated with the American Gas Association, at Cleveland, Ohio.

**J. K. Firth, Jr.,** who was formerly head of the Fuel Oil and Asphalt Division of the Standard Oil Company of California, has been appointed manager of sales for all Pacific Public Service properties.

**Harry D. Swain** became the manager of Westchester Lighting Company's Peekskill, N. Y., district office, March 1, filling the position made vacant by the death of Charles LeClair.


# *Announcement*

**To aid more efficiently in the preparation of well-planned advertising and sales campaigns we will issue for distribution about March 1, 1931**

***A Complete Portfolio of***
***A. G. A. ADVERTISING SERVICES***
***For 1931***

This Portfolio—loose-leaf—will contain full information regarding:

**A. G. A. ART AND COPY SERVICE**
**HOUSEHOLD INFORMATION SERVICE**
**OUTDOOR POSTER AND CAR CARD SERVICE**
**DIRECT-MAIL SERVICE—10 PIECES**
**CLEANLINESS INSTITUTE COOPERATIVE SERVICE**

**If you have not received your portfolio by March 15, 1931—write the**

**AMERICAN GAS ASSOCIATION**

**420 Lexington Avenue New York, N. Y.**

## Accounting Section

J. I. BLANCHFIELD, Chairman H. W. HARTMAN, Secretary WILLIAM A. DOERING, Vice-Chairman

# Film to Tell Story of Natural Gas at Accounting Conference

WHAT promises to be one of the outstanding features of the Third Accounting Section Conference which will take place April 23 and 24 at the Hotel Stevens, Chicago, Illinois, will be a motion picture showing the operations of the natural gas industry portraying that business from the well to the consumer. E. B. Nutt, chairman of the Committee on Natural Gas Representation, Accounting Section, American Gas Association, will present this film which is entitled "The Story of Natural Gas." The Conference Committee on Arrangements will endeavor to introduce a note of informality at the four business sessions which are scheduled.

C. J. Fue is chairman of a special committee named for the purpose of developing several controversial questions on accounting subjects and procedure. It is planned to submit before the Conference solutions to what are regarded as ten important problems and opportunity will be afforded for a discussion of each. This activity is on the program under the heading "What Would You Do?"

A round table luncheon discussion on divisions of the section's work will be under the leadership of M. E. Brown, superintendent of branches of the Brooklyn Union Gas Company, Brooklyn, N. Y. Subjects to be discussed at this time will include collecting, meter reading, machine billing, addressograph work, general accounting, merchandise accounting, preparation of statements and stores accounting.

The round table gathering will be introduced as a result of many requests for it as a Conference feature and Mr. Brown expects to make an informal report on the results of the discussion under the subject of "Something for Everybody."

It is advisable for members planning to attend the Conference, to write Mr. Brown, care of the Brooklyn Union Gas Company, Brooklyn, N. Y., in advance, indicating their desire to be placed at tables for the discussion of one of the topics named.

Frank L. Griffith, assistant secretary of The Peoples Gas Light & Coke Company, Chicago, Illinois, will submit to the Conference a paper on "The Therm Basis of Billing," which will be an outline of the problems and decisions reached on a study of this method which has been adopted by The Peoples Gas Light & Coke Company.

While some of the papers and reports to be submitted at the Conference will be available in mimeographed form, it is hoped by those in charge of arrangements that members attending will come prepared to participate in the discussions from the standpoint of their own experience rather than depending on a study of the papers and reports.

The committee has prepared the following tentative program:

*Thursday Morning, April 23*

Opening Remarks: J. I. Blanchfield, *Chairman,* The Brooklyn Union Gas Co., Brooklyn, N. Y.

Address of Welcome: G. F. Mitchell, President, The Peoples Gas Light & Coke Co., Chicago, Ill.

Paper: Developments in Rate Changes: Paul Ryan, Statistician, American Gas Association, New York, N. Y.

Paper: The Therm Basis of Billing: Frank L. Griffith, Asst. Secy., The Peoples Gas Light & Coke Co., Chicago, Ill.

Paper: General Educational Plans for Gas Co. Office Employees: Geo. B. Webber, Associate Dir., Educational Work, Public Service Electric & Gas Co., Newark, N. J.

*Thursday Afternoon, April 23*

Introductory Remarks: Louis Stoecker, *Chairman, Customer Relations Group,* Public Service Electric & Gas Co., Newark, N. J.

Paper: The Customer's Counsel Within the Company: R. F. Bonsall, Consolidated Gas Electric Light & Power Co., Baltimore, Md.

Paper: Customer Relations Entering into Change-Over from Manufactured to Natural Gas: Paul Renshaw, Memphis Power & Light Co., Memphis, Tenn.

Paper: Routines and Practices Followed in Initial and Other Customer Contacts: B. S. Watson, H. L. Doherty & Co., New York, N. Y.

Paper: A. G. A. Course in Employee Customer Relations: (Author to be announced).

*Friday Morning, April 24*

Report: "Something for Everybody": M. E. Brown, The Brooklyn Union Gas Co., Brooklyn, N. Y. (An informal report on the result of round table luncheon discussions of accounting and commercial office subjects.)

Report: "What Would You Do?": C. F. Fue, The Brooklyn Union Gas Co., Brooklyn, N. Y. (The report of a committee appointed to secure answers to ten problems in accounting procedure.)

The Story of Natural Gas—A Motion Picture: E. B. Nutt, *Chairman, Committee on Natural Gas Representation,* Pittsburgh, Pa.

*Friday Afternoon, April 24*

Progress Report: Insurance Committee: T. H. Prendergast, *Chairman,* Long Island Lighting Co., New York, N. Y.

Progress Report: Coding of Materials, Supplies and Merchandise: D. H. Mitchell, *Chairman,* Northern Indiana Public Service Co., Hammond, Ind.

Progress Report: Standard Departmental Financial and Cost Statements: H. A. Ehrmann, *Chairman,* Midland United Co., Chicago, Ill.

Paper: The Application of Retail Inventory Methods to Public Utility Merchandise Accounting: James E. Kane, Consolidated Gas Electric Light & Power Co., Baltimore, Md.

Summarizing the Conference: W. A. Sauer, Midland United Co., Chicago, Ill.

## Industrial Gas Staffs Praised By "Heat Review"

**WE want to congratulate the industrial staffs of the gas industry upon the policies of co-operation which they have adopted during the past year," says the "R-S Industrial Heat Review," published by Ryan, Scully & Company, Philadelphia, Pa., in its January number. Continuing, the editorial, under the caption "The Coming Year in the Gas Industry," states: "We want to suggest to our readers who are interested in gas as a fuel for their industrial heating operations that they consider it as a product being offered by an industry with its foundation deep in the ground, an industry that can be expected to improve the quality of its product and its distribution, and reduce the cost in fair ratio with existing conditions."**

## Industrial Gas Section

D. W. CHAPMAN, Chairman — C. W. BERGHORN, Secretary — A. J. PETERS, Vice-Chairman

# Selling Industrial Gas By Advertising*

By JOHN F. WEEDON

Chairman, Advertising Committee Industrial Section, American Gas Association

THERE are two channels for advertising industrial gas. One of them is the national campaign, put out by the American Gas Association, under the direction of the Industrial Gas Section, and the other is the local advertising done by the individual gas company in its own territory.

Soon after the Industrial Gas Section came into being, some seven or eight years ago, it was at once seen that a national tie-up was necessary. Manufacturers all over the country had to be made aware that gas was a live competitor for the crude fuels they were then using.

Unlike the British Commercial Gas Association, which puts out a very extensive, and probably a very expensive, campaign for gas, in all its phases of usefulness, the American Gas Association has never done any national advertising. With the exception of a comparatively small fund used for this purpose by the Industrial Section, it does none now. Advertising on a large general scale is, so far, not one of its functions.

But when it became apparent that manufacturers in various parts of the country were beginning to use gas, in large quantities, in the fabrication of a great variety of articles, it also became apparent that it was necessary to spread this information to other manufacturers in these respective lines of business. Consequently a small fund was allotted, I think it was $35,000, for purchasing space in trade journals.

Trade journals are now divided into two types. One we call the "verticals"—those dealing strictly with only one form of industry;—such as "The Ceramic Age" and the other we call "horizontals"—those covering many industries, such as "Factory Management" and "Industrial Record."

We find that the "horizontal" group is much more prolific in bringing inquiries than the "vertical" group; nevertheless there are some excellent "vertical" trade journals and we cannot disregard them altogether.

Since the Industrial Section of the A. G. A. started its advertising campaign the appropriation has grown larger. For 1931 and 1932—we have allocated $75,902.20.

This amount will be used to prepare copy and to buy space in eight horizontal publications and eighteen vertical, and five college publications. We believe in colleges where they have engineering courses that it is wise to start early in teaching the young engineer which way to shoot.

In making up our list of publications we were guided by data collected from various sources and particularly from the United States Census of Manufacturers.

We discovered, among other things, that 95 per cent of all the industrial gas consumed was taken by seven lines of industry, arranged in order of their importance to us as follows:

Food products, iron and steel products, chemical and allied products, ceramic products, non-ferrous products, machinery, hotel and restaurant.

With this list before us we started to select the trade journals which seemed most likely to reach the people engaged in these industries.

In addition to advertising space, bought and paid for, the Industrial Section has a very active writer of industrial gas news stories. These are taken by reputable journals and published solely on their news value. We pay nothing for having them printed, neither do we pledge ourselves directly or indirectly to reciprocate by buying advertising space in such journals. The stories must stand or fall entirely on their own merits as "news" items of interest and instruction to the readers of the journal. There is no collusion between the "publicity" activity and the "advertising" end. Editors may take them or leave them, just as they please. Last year seventy-two original articles were written, and fifty-two magazines printed seventy stories.

I would like you to get this fact because it clearly reveals that a very large number of trade journal editors are fully alive to the fact that industrial gas stories, new uses, new installations, and new developments, are items of first class interest to their readers, and they are glad to get them. Gas as an industrial fuel has arrived, but it is still new enough to make it a matter of interest and importance to the manufacturer.

This $75,000 campaign, which I have outlined, is confined to the trade journal field, and is all that is being done at the present in the way of national advertising. I hope to see the day when the American Gas Association will deem it wise to allow their advertisements to appear in national mediums of large and general circulation, such as *Time*, the *Literary Digest*, *Nation's Business*, and similar publications, that for the most part are read with as much interest by the manufacturer, the engineer, and what *Time* calls the "tycoons"—as they devote to their individual trade journals.

Outside of this national campaign, individual companies can do all the local advertising for industrial gas that they desire to do, and use any form of advertising they prefer for the purpose.

We have the daily newspapers, radio, direct-by-mail, and outdoor advertising billboards.

In a city of from a million to five million people, with comparatively few potential buyers of gas for industrial purposes we are confronted with two problems —how best to reach these few, and more particularly still, how best to impress them with the magnitude and importance of our proposition. For this purpose I consider daily newspapers out of the question entirely. Space in metropolitan newspapers is very expensive, and the life of the daily edition very short; born at 8 A.M. and dead by 11 A.M.

For immediate sales newspapers are perhaps the best medium we have, but industrial gas is not an "immediate sale" proposition. People do not buy industrial gas like they buy druggist's sundries, or even gas ranges.

The question has been put up to me several times; "Why do we advertise at all?—our prospects are comparatively few, the job will have to be sold by an engineer-salesman and we can have these engineer-salesmen visit every prospect at much less expense than an effective advertising campaign will cost."

My answer to that I picked up from a remark that Mr. Samuel Insull let drop when speaking of the same subject. Whenever I want to say something really smart, I generally manage to swipe it from some really smart man, and I don't always give him the credit for it. Mr. Insull's reply to this question was "To create an atmosphere."

I think this reply conveys its meaning without much examination or analysis. When a man is using some crude fuel in his factory, and finds industrial gas advertising in his trade journal—when he gets a few pieces of industrial gas advertising in his morning mail, and when in his daily journeys around the city he beholds illuminated billboards calling attention to the fact that "gas is a factory fuel," he is much

*Digest of address before the mid-west Industrial Engineers (Gas) Chicago, Ill., Jan. 16, 1931.

more likely to be sympathetic to the subject when the salesman makes his call, than if he had never heard or seen the matter mentioned anywhere before.

When you call to sell a man something on a direct appeal he unconsciously assumes a sales-resisting attitude, adopts a sort of defensive armor. But when you go out into the highways, and the buy-ways, and announce your product to the whole cock-eyed world, your prospect is not on the defensive, he does not feel that your argument is directed against him, but the information soaks in between the joints of his harness, and ultimately his whole exterior is softened and he is already more or less warmed up to your proposition by the time you get around to present it to him on a purely personal basis.

Human beings are gregarious animals, and that does not mean merely the *boi polloi* and the illiterate. Leaders of industry are just as alert to detect the signs of change in direction as any one else, and to follow it. Advertising men know this, that is the reason you so often see such headlines as "Thousands of people are now using. . . ."

Of course we know that you cannot induce a manufacturer to install gas in his furnace merely because some other manufacturer has done so, he has to have more substantial reasons than that,—but the knowledge that others have done so makes him keen to know "why"—and it is the salesman's job to tell him why.

A good deal of effort and quite a lot of money goes into the preparation of the American Gas Association trade journal "ads." Proofs of these "ads" can be had from headquarters, all about what they cost to print, and they can be made very useful as mailing pieces to a list of your prospects. One or two good looking "proofs" in a man's mail once or twice a month will keep him alive to the fact that the gas man is "up and doing" and that things are stirring in the industrial gas fuel field. One company, at least, has adopted the practice of having good photographs taken of installations they have made, and sending an actual photograph around to their prospects.

This is an excellent idea also, but presents many problems, besides that of cost. Many manufacturers object to having their plants photographed, and it is a matter of considerable difficulty to get a photograph, even when permission is granted, that is entirely satisfactory from an advertising point of view. A collection of such photographs is of course very useful for the office files, but it is only exceptionally good ones that have any advertising value.

There has been so much silly salesmanship attempted over the radio in practically all lines that its usefulness, in my opinion, has temporarily at least been greatly impaired. This is particularly true when the copy is turned over to a regular announcer, who is a sort of academic robot with an Oxford accent; teacher's pet, demonstrating to the class how to read aloud, with a well modulated voice, careful of diacritical marks, knowing when and how to lower or raise his voice, to make the correct inflections as the text demands. When you hear such a voice declaiming the merits of somebody's candy, with a lot of sticky superlatives, and delicious pure whipped cream centers, and ten minutes afterwards hear the same voice, with the same style of delivery, call your attention to the virtues of corn-plasters for sore feet and soft corns between the toes—well, his carefully chosen superlatives go for naught, and you have grave doubts as to his sincerity, and switch your radio off. No salesman can be long successful unless he has a sincere belief in the article or service he is selling. Mere pulpiteering and notice reading, however well done, is not convincing.

On the other hand there are people in the industry with the necessary information, the essential conviction, and the correct tonal qualities necessary for radio talks, who, if they avoid using too many technicalities and are not too long-winded could make an excellent talk on the subject of gas service, and incidentally stress its new uses, in industry and house heating.

This could also be done by a good "news" hunter, like Floyd Gibbons. Those of you who were at Atlantic City will remember the fifteen-minute talk he made on the history of gas. There was not a gas man present who did not already know every detail of Mr. Gibbons' speech. But he injected so much of his own enthusiasm and personality into the subject, that he re-told us our own old story, and made it seem bright, and new and interesting. I believe it would be to the interest of the gas industry all over the country to engage Mr. Gibbons or someone like him for a national radio hook-up. But as a local spiel, by a radio announcer, or anyone lacking all the necessary qualifications to hold the attention of an audience, otherwise inclined to be indifferent to the subject, I am of the opinion that the effort would be worse than wasted.

I do not know of any better way of informing a community of a fact, than by putting that fact on an illuminated billboard. It is also the cheapest way. The monthly cost of a billboard, working for you eighteen hours a day, every day in the month would only buy a very small amount of space in a daily newspaper, giving you a flash for three or four hours, and that seen by only a small percentage of the people who buy the paper. There is I know a large amount of esthetic opposition to billboards. This is largely the result of careless bill-posting by small and irresponsible concerns. The large organizations engaged in this business realize the importance of making their billboards substantial and of pleasing appearance, and placed in position where they will give no legitimate cause for offense. Much has been said about "billboards" spoiling the landscape, but very little has been said about the billboards that cover up unsightly spots. After all a boulevard board, well designed and well lighted is merely an extension of the shop window, and most people enjoy looking at shop windows. As a means of "telling the world" they have no equal. Billboards on a railroad right-of-way can be rented for as small a sum as $35 a month.

About eighteen months ago the Industrial Gas Section Advertising Committee made an attempt to interest every company in putting at least one railroad billboard in their territory. You can imagine the impression that would be made on a traveler, say from Chicago to New York, if he saw a billboard in every town and city he went through announcing the fact that manufacturers of that town used gas in their fabrications. He could hardly escape the conviction that gas was rapidly becoming the universally accepted fuel for all factory purposes, as indeed it will be in a very short space of time.

Unfortunately only a few companies adopted this suggestion, although a good many companies, all over the country, and particularly in the West, expressed interest in the idea. I believe in the course of the next few years we shall see an extension of gas mains throughout the country that will make gas service as commonly available as railroad service is today. With the knowledge that gas in enormous quantities soon will be available to us in the Middle West, comes also the fact that competition in the factory fuel field is also keener than it ever was before.

Those interested in liquefied gases, and electricity are making tremendous efforts to capture as much of the industrial trade as they can get. The coal men have performed miracles in furnace construction, eliminating many of the hitherto inherent objections to solid fuel, and making it possible to use the poorest and cheapest grades of coal, with advantage and economy.

Then there is the continued failure of many combination gas and electric companies to aggressively develop the gas business on a parity with the efforts they put into developing the electric business.

There is no doubt that the industrial gas salesman has plenty of hard work ahead of him for the next few years. That gas will eventually win there can be no reasonable cause to doubt, and I feel sure that it will win all the sooner, and the industrial gas man's labors will be lightened if it is backed up with a steady, liberal, and persistent line of good industrial gas advertising.

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## May Legalize Bonds for Municipal Plant

THE issuance of revenue bonds as a means of financing a municipally-owned utility in Oklahoma would be legalized under a Senate Joint Resolution now pending in the Oklahoma Legislature to submit a constitutional amendment. This resolution was introduced following action of the municipal counsellor of Oklahoma City, Longstreet Hull, in rendering an opinion to the city council that the issuance of such bonds for construction of a municipally-owned gas distribution system is not legal in Oklahoma.

# Supplementary Industrial Bibliography

FOLLOWING is a supplementary list to the recently published Selected Bibliography of Industrial Gas Articles:

*Varnish Boiling—A-X*

Electrical World ..... Container resistance heating improves industrial processes ..... Nov. 29, 1930, p. 995
(Overall costs—coke versus electricity for varnish making.)

*Case Hardening—B-V*

Iron Age ..... Standardizes process of hardening screws ..... Dec. 25, 1930, p. 1923
(Mfd. gas in rotary furnaces, electric drawing furnace.)

Metal Progress .... Carburizing with gas in underground retorts ..... Jan. 1931, p. 39
(Tests with a 530 B.t.u. city gas and with propane-air mixture.)

*Stereotype, Linotype and Monotype—D-II*

Gas Age-Record ..... A recent gas-heated stereotype pot installation ..... Jan. 3, 1931, p. 13
(Mfd. gas—test and operating data.)

*Core Baking—I-I*

Iron Age ..... Cores baked in continuous gas-fired oven ..... Dec. 25, 1930, p. 1916
(Savings in space, baking time and overall costs. Mfd. gas.)

*Brick—J-II*

Industrial Gas.. They save in fuel and labor costs and make a better product by using natural gas ..... Dec. 1930, p. 22

# Southwestern Gas Measurement Short Course to Be Held in May

THE eighth annual Southwestern Gas Measurement Short Course is scheduled to be held at the University of Oklahoma, Norman, Okla., April 21, 22, 23, this year.

The purpose of the course is to provide, through cooperation of the University of Oklahoma, Corporation Commission and Oklahoma Utilities Association, an opportunity for men in the natural gas industry to get together and study problems pertaining to the measurement and regulation of dry and casinghead gas, hoping thereby to more nearly establish full accuracy of measurement and efficiency of regulation to the end that the public may be better served, dealings between buyer and seller put on a more accurate and equitable basis and that correct information regarding the engineering and practical problems involved may be disseminated among the men identified with the natural gas industry.

The course is managed by a general committee of approximately fifteen active members who are appointed yearly by the Gas Division of the Oklahoma Utilities Association. The working plan adopted and followed from the beginning provides that the College of Engineering of the University of Oklahoma, the Oklahoma Utilities Association, the Oklahoma Corporation Commission and the equipment manufacturing group shall always be represented on the general committee. The remaining members represent gas and gasoline companies. The personal qualifications of the individual are the basis for committee membership.

W. H. Carson, professor of mechanical engineering of the University School of Engineering, is active director of the gas measurement short course. Dr. W. B. Bizzell, president of the university, extends an address of welcome to the group each year, and Dr. J. H. Felgar, dean of the College of Engineering, is in close touch with the project at all times and gives it his enthusiastic endorsement and support.

The chairman of the general committee this year is C. B. Day, Blackwell, district manager of the Consolidated Gas Utilities Company. A new record of attendance was established last year, approximately 450, with twenty-two states and two foreign countries represented. It is expected that the more important papers and discussions in this year's course will be published as a university bulletin, which will be available to the industry.

# Hundreds Inspect New Home of Derby Gas Company

MORE than 1,300 people of Derby, Conn., and vicinity attended the formal opening of the Derby Gas and Electric Company's new office building and salesroom last month.

An address was delivered by H. T. Prichard of Chicago, vice-president in charge of operation of the Utilities Power and Light Company, parent company of the Derby Gas and Electric Company, who paid high tribute to the work of George H. Scranton, the company's president and general manager.

Characterizing the opening of the Derby Company's new home as "A Notable Advance in Public Service," the *Evening Sentinel*, of Ansonia, Conn., editorially said:

"For approximately sixty years a single organization has supplied the people of Ansonia, Derby and Shelton with light, and latterly with power and heat. Successive groups of men have controlled it, but through changing managements there has been a single, foremost purpose—to provide for the people of these communities an adequate, ideal service.

"There have been many proofs of this, but the culminating one is found in the new building which the Derby Gas and Electric Company has opened today for the inspection of the people whom it serves. It is a palatial building, in some senses. It is the last word in beauty, good taste and admirable appointment."

## Technical Section

R. G. GRISWOLD, Chairman H. W. HARTMAN, Secretary K. H. CREE, Asst. Secretary I. K. PECK, Vice-Chairman

# Distribution Conference Opens April 8

THE Union Gas and Electric Company will play host to the manufactured and natural gas men who will attend the eighth annual conference of the Distribution Conference, Technical Section, American Gas Association, when it opens at Cincinnati, Ohio, April 8, for a three-day session. Meetings will take place at Starrett's Netherland Plaza.

An unusually large attendance is anticipated, the West and Middle West being expected to contribute large delegations. Six sessions are planned, one being a night meeting, arranged in order to leave an afternoon free so that those in attendance may inspect gas properties in and about Cincinnati.

Much interesting information is expected from papers and reports which will be presented by men who are prominent in the gas industry. The tentative program follows:

### First Session

*Wednesday, April 8—10:00 A.M.*

Address of Welcome—President, Union Gas & Electric Company.

Report: Committee on Change over from Manufactured to Natural Gas—Geo. Wehrle, Chairman, Superintendent Gas Dept., Colorado Public Service Co., Denver, Colorado.

Report: Cast Iron Pipe Standards Committee—Walton Forstall, Chairman.

### Second Session

*Wednesday, April 8—2:00 P.M.*

Report: Pipe Joints Committee—H. W. Battin, Chairman.

Paper: Arc Welding of Steel Pipe—H. C. Price, Welding Engineering Company, Bartlesville, Okla.

Presentation: Mechanical Joints Test in Conjunction with Cast Iron Pipe Research Association. K. R. Knapp, Chief Engr., A. G. A. Laboratory.

Report: Pipe Joint Research at A. G. A. Laboratory. K. R. Knapp, Chief Engr., A. G. A. Laboratory.

Presentation: Movement of Pipe in Sub-Soil—Wm. M. Henderson, Los Angeles Gas & Electric Corporation, Los Angeles, Calif.

Paper: U. G. I. Experience with use of Wedgetite Type Rubber Rings—H. W. Battin, U. G. I. Company, Philadelphia, Pa.

Open Forum:
Testing Cast Iron Fittings.
U. S. Cast Iron Pipe Co.—Mr. Stokes.

### Third Session

*Thursday, April 9—10:00 A.M.*

Report: Committee on Pipe Coatings and Corrosion—J. K. Crowell, Chairman.

Presentation: Soil Corrosion Studies at Bureau of Standards—K. H. Logan, Bureau of Standards, Washington, D. C.

Paper: Pipe Coatings and Corrosions—O. K. Smith, United Light & Power Construction Company.

Report: Progress in Pipe Coatings Research—Dr. Scott Ewing, Research Associate, Bureau of Standards, Washington, D. C.

Presentation: Summary of Progress in Corrosion Research of the A. P. I.—Dr. Gordon Scott, Research Associate, Bureau of Standards, Washington, D. C. (moving pictures to be used).

*Thursday, April 9*

### Afternoon

The following arrangements have been made for sight-seeing trips for members: Buses will leave at 1:30 P.M. from the hotel and make stops at the following points of interest:

1. New Building of Union Gas & Electric Co. For inspection of gas heating plant and industrial exhibit.
2. Inspection of Carew Tower gas heating plant which heats entire office building, garage, and St. Nicholas Plaza Hotel.

Buses will be provided to take members to the levee where a view of the waterfront can be obtained and will then proceed to the East End Gas Works water gas plant of 24,000,000 cu.ft. capacity where natural gas is mixed with water gas of either producer, blue or carburetted type.

A drive along the Columbia Avenue Boulevard where a panoramic view of the city may be obtained also has been arranged for.

### Fourth Session

*Thursday, April 9—8:00 P.M.*

Paper: Distribution Design of Los Angeles Gas & Electric Company—W. M. Henderson.

Paper: Distribution Design in Denver—W. H. Harrison, Henry L. Doherty & Company, New York, N. Y.

Paper: Distribution Design in Cincinnati—Earl A. Munyan, Superintendent Gas Department, Union Gas & Electric Co., Cincinnati, Ohio.

Paper: Distribution Design in Chicago—V. F. Bittner, Student Engineer, and J. J. Novy, Outside Plant Engineer, The Peoples Gas Light & Coke Company, Chicago, Ill.

The Application of High and Low Pressures to various Distribution Systems.—C. S. Goldsmith, Brooklyn Union Gas Company, Brooklyn, N. Y.

### Fifth Session

*Friday, April 10—9:30 A.M.*

Report: Meters Committee—Mr. J. E. Overback, Chairman, Columbus Engineering & Management Corp., Columbus, Ohio.

Paper: The Effect of Dehydration and Oil Fogging on Meters—Mr. J. E. Spindle, General Superintendent, Grand Rapids Gas Light Company.

Paper: Power Tamping Machines—Mr. W. E. Kemen, Engineer of Distribution, Milwaukee Gas Light Co., or someone from American Light & Traction Company (slides may be used for demonstration.)

Paper: Boring Machines of Special Design—A. H. Anderson, Superintendent of Distribution, Detroit City Gas Company (slides may be used for demonstration).

### Sixth Session

*Friday, April 10—2:00 P.M.*

Report: Committee on Lost and Unaccounted for Gas—J. M. Pickford, Chairman.

Paper: The design and operation of a Butane-Air Plant and distribution system — E. L. Fischer, United Light & Power Company.

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## Joint Production and Chemical Conference

THE next Joint Production and Chemical Conference will be held in Philadelphia, Pa., May 20, 21, 22, at the Benjamin Franklin Hotel.

The conference, this year, is expected to attract a large number of delegates from all parts of the country and the Philadelphia Gas Works Company has promised to furnish considerable opportunity for those attending the conference to visit various departments and plants throughout its territory, where many new and interesting developments have taken place.

A definite program is being made up for the conference and will be announced shortly. Many interesting topics will be presented.

## Natural Gas Department

H. C. COOPER, Chairman E. J. STEPHANY, Secretary H. L. MONTGOMERY, Vice-Chairman

# Convention Keynote to Be "Gas, Its Place in Our Time"

"GAS, Its Place in Our Time" will be the keynote of the annual convention of the Natural Gas Department, American Gas Association, which opens at the Peabody Hotel, Memphis, Tenn., May 11 for a four-day session. The Program Committee, under the direction of E. F. Schmidt, of the Lone Star Gas Company, Dallas, Texas, as chairman, is engaged in whipping into shape a program that undoubtedly will hold interest for all branches of the natural gas industry. Addresses to be delivered and reports to be submitted will cover practically all problems which today confront the natural gas man.

Two sessions will be held daily beginning on Tuesday, May 12 and continuing through Thursday, May 14.

The afternoon of Wednesday, May 13, will be given over to a "Drilling Symposium." Thursday afternoon, May 14, there will be a "Production Symposium."

Committees in charge of the convention are as follows:

GENERAL ARRANGEMENTS—W. J. O'Brien, chairman, Memphis Power and Light Company, Memphis, Tenn.; B. C. Adams, Gas Service Company, Kansas City, Mo.; J. B. Corrin, Standard Oil Company of New Jersey, Pittsburgh, Pa.; H. L. Dickerson, United Gas Corporation, Houston, Texas; Edgar G. Hill, Southern Natural Gas Corporation, Birmingham, Ala.; J. R. Munce, Arkansas Natural Gas Corporation, Shreveport, La.; F. F. Schauer, Equitable Gas Company, Pittsburgh, Pa.; D. C. Shaffer, Memphis Natural Gas Company, Memphis, Tenn.; T. R. Weymouth, Columbia Gas and Electric Corporation, New York City; William Moeller, Jr., Southern California Gas Company, Los Angeles, Calif.; Alfred Hurlburt, Central Public Service Corporation, Chicago, Ill.

PROGRAM COMMITTEE—E. F. Schmidt, chairman, Lone Star Gas Company, Dallas, Texas; W. A. Dunkley, Memphis Power and Light Company, Memphis, Tenn.; T. J. Fitzpatrick, Western Public Service Company, Salt Lake City, Utah; T. H. Kerr, Columbia Gas and Electric Corporation, Columbus, Ohio; J. H. Maxon, North American Light and Power Company, Omaha, Nebr.; A. E. Merchant, New Orleans Public Service, Incorporated, New Orleans, La.; H. L. Montgomery, Cities Service Gas Company, Bartlesville, Okla.; W. B. Trammell, Houston Gulf Gas Company, Houston, Texas; George Wehrle, Public Service Company of Colorado, Denver, Colo.; W. S. Yard, Pacific Gas and Electric Company, San Francsico, Calif.

PUBLICITY COMMITTEE—Paul Renshaw, chairman, Memphis Power and Light Company, Memphis, Tenn.; J. C. Barnes, New Orleans Public Service Incorporated, New Orleans, La.; William C. Grant, Lone Star Gas Company, Dallas, Texas; C. D. Greason, Gas Service Company, Kansas City, Missouri; R. S. McBeth, Oklahoma Natural Gas Corporation, Tulsa, Okla.

HOTELS COMMITTEE—J. J. Brennan, chairman, Memphis Power and Light Company, Memphis, Tenn.

RECEPTION COMMITTEE—W. N. Ford, chairman, Memphis Power and Light Company, Memphis, Tenn.

# Gas and Fuel Chemists to Hold Symposium

ONE of the outstanding features of the eighty-first meeting of the American Chemical Society, which will take place at Indianapolis, Ind., March 30 to April 3, will be a symposium on "The Utilization of Gaseous Hydrocarbons," in which the divisions of gas and fuel chemistry, industrial and engineering chemistry, and petroleum chemistry, will join.

Registration for this meeting will begin at 9 o'clock, Monday morning, March 30. Professor Moses Gomberg, University of Michigan, will preside at the opening event, which will be a meeting of the Council.

Three symposiums will feature the proceedings on Tuesday, March 31. One, on "Contemporary Developments in the Chemistry of Physiologically Active Substances," which will be under the auspices of the divisions of biological, medicinal and organic chemistry, with Professor James B. Conant, Harvard University, as chairman.

The division of chemical education, of which Dr. John N. Swan, of Tuckahoe, N. Y., formerly head of the department of chemistry in the University of Mississippi, is chairman, will sponsor a second symposium on "Cooperation Between Industry and Chemical Education." A third on "Mathematics in the Service of Chemistry," will be given by the division of physical and inorganic chemistry, headed by Professor Farrington Daniels of the University of Wisconsin.

"Dietary Facts and Fads" will be the theme of a public address to be delivered by Professor William C. Rose of the University of Illinois, on Wednesday evening, April 1.

Trips of inspection to the industrial and educational institutions in Indiana, and many social events will form part of the program.

## "Bottled" Gas Available Along Hudson River

GAS stored in portable containers will be made available in the smaller communities and rural sections along the Hudson river, by the Central Hudson Gas and Electric Corp., according to an announcement made by the company last month. The service is made possible by recently developed methods of gas production.

Gas service has been furnished for many years by the company in the larger communities of the Central Hudson Valley. Recently pipe lines for carrying gas at high pressure have been installed, connecting Kingston and Saugerties, Newburgh, Beacon, Wappingers Falls, Fishkill, Poughkeepsie and other communities.

## Commercial Section

E. R. ACKER, Chairman — J. W. WEST, Jr., Secretary — SAMUEL INSULL, Jr., Vice-Chairman

# Meeting Today's Competition*

By T. F. KENNEDY
Henry L. Doherty & Co.

WHEN one is presented to this Mid-West Sales Council he addresses a cross section of the gas industry of the United States. The territory which your companies provide with gas, either manufactured or natural, is essentially important to the nation's welfare. The people of these seven states are representative of all America for among them is the new center of population. Standards of education, living and well being are here adjusted to consistently higher levels with each passing cycle of time.

As I present my views on the subject you have assigned to me, there is need of doing so in a broad manner. As some of you gentlemen deal in manufactured gas, others in natural gas and as some are changing from one to another, it would be improper to particularize on the problems of either. The competition which you have asked me to deal with does not confine itself to this region alone, but reaches all sections of the country. Thus, I explain in advance, these remarks should be construed more generic than specific.

Every gas man should be concerned in sales of gas in maintaining those sales at undiminished volume and then in increasing them in every possible direction. Attendance at this meeting indicates an especial interest in gas sales problems and establishes a community of interest in competition which stands ready to thwart our ambitions, so that they may attain their own.

Another way to say "meeting today's competition" is—"To obtain objectives which are sought by others at the same time." We seek gas sales. A sale is—"the transfer of property for money,"—and there we have the goal of all endeavor.

Everyone struggles for the customer's dollar. We bend every effort to serve the public so well that they will reward us in each succeeding year with increased sales and dollars. Every other industry holds the same ambition, each has plans, and men working to bring about these increases, and there is the "rub"—and the contest. As in a footrace or a "battle royal," one will win, many will lose and who shall say that the winner does not earn the rewards which go with winning. All mankind acknowledges that "To the winner belong the prizes."

Gas competition can be divided into two classes—direct and indirect. Gas in the home or factory is primarily a fuel. The other fuels with which the public are familiar, in order of the amounts used, are coal, wood, oil, and electricity. These are direct rivals.

The newest entrants into the fuel market, the parafin hydro carbons, propane, butane and pentane, either bottled or piped, have exceedingly interesting possibilities and doubtless will become factors. However, up to the moment, "Bottled Gas" appears to be more of an ally of gas than an opponent, so we can dismiss it from further consideration as a competitor.

Coal and oil are popular house heating fuels. They must be displaced as gas increases its sales for that purpose. Electricity and oil are important factors to the gas man as he plans for tomorrow because both intend to become more important in domestic cooking and water heating. In other words, they plan to displace gas in that market. So gas faces the most difficult form of encounter, a simultaneous defense and attack in opposite directions. Strategists agree that this type of engagement rarely leaves the party of the first part without a few scars or abrasions—not to mention amputations.

Gas men must begin to recognize that henceforth the competitive struggle will be Industry against Industry. In the past, the resistance to encroachment of one fuel into the domain of another came sporadically from a few. Strategic reasons have caused the coal, oil and electric men to unite into city, state, and national associations. They are organizing for reasons identical with those we, as gas men, have expressed here today. To protect the present sales against encroachment and *unitedly* to fight for more business.

That fuel industry, which moves in the most orderly and effective manner to develop its markets and sales, will gain ascendency over those less smart and alert. The task is one of meeting the public's wishes for modern fuel service at prices which appeal to the buyer as good value. Remember that the consumer is the final judge as to whether rates or prices are correct. Next, our proposition must be carried direct to the prospective buyer. We must excel in the presentation and selling of our proposal. The struggle for supremacy will be won by sales methods and salesmen.

The impending state of affairs has been studied by many. The universal conclusion is that the gas industry should hustle for sales as it never has before. Gas men should agree on sales plans and policies, and like the competitors, unitedly work with every implement available for more business. Failure to cope with renewed efforts of competition must result in lost revenue.

An excellent case in point can be found in the coal industry, where procrastination was paid for at staggering costs. To quote from *Fortune* magazine relative to hard coal—"The anthracite industry in 1920 had an output of 80,000,000 tons, yet the output of the industry in 1929 was only 68,000,000 tons. The figures for 1930, when they are finally assembled, will be smaller still. This is the prime symptom of the industry's disease.

"One of the causes is the alienation of the consumer. In the nineteenth century anthracite ran the blast furnaces of the nation. It ranked as the the best fuel for locomotives and steamboats. As its price advanced, it was ousted from one by coke, from the other by soft coal, but it suffered no great damage, for it became recognized as the best fuel for heating homes.

"In the last ten years its hold on the domestic consumer has been shaken. War-time regulations and the strikes of 1922 and 1925 made many customers turn to substitutes. Some were disgusted by the uncertainty of supply, others by poor quality, especially during strikes. Others turned to cheaper fuels.

"In the past few years many consumers were weaned away by the sellers of oil and gas. Price was not the consideration with them, but convenience, for they were promised freedom from the chore of furnace tending which fell upon them with the type of coal furnace they had long used.

"Plainly, these events were not mere mishaps—they were the fruits of the industries' own ignorance, lethargy, self-satisfaction. Anthracite had always sold itself; why should the producers bother to extend its markets. Anthracite was not being sold; instead the public was not always graciously allowed to buy; its retail merchants were for the most part merely truck drivers.

"Today the Anthracite Institute and some of the producers are teaching the retailer a new salesmanship. Men are going from door-to-door in many cities inspecting, free of charge, the furnaces in houses, prescribing what kind of anthracite will give the best results, pointing out defects in equipment which often make heating plants inefficient. Some

* Presented before Mid-West Regional Gas Sales Conference, Chicago, Ill., Feb. 13, 1931.

retail dealers have gone further and are selling now, not coal but heat, contracting to provide a certain degree of warmth and even janitor service at an inclusive price."

Modern heating service is offered by the coal man through automatic stokers, of which there are scores already on the market and thousands in the homes of potential gas customers. Any coal trade journal will impress you with the efficacy of the stoker to assist the coal man, in selling his fuel, be it soft, hard coal, or coke. In other words, the coal industry should now be considered a live vigorous force in the fuel markets. The lethargy of a decade or two ago has been replaced by alacrity. A comparison of the cost per million B.t.u. for gas under your rates and that of domestic stoker coal will eliminate your commodity as a competitor.

The oil industry has learned a similar lesson. After spending several years in a constant struggle to meet the demand for petroleum products, oil men have lately had the tables turned and now find supplies greatly in excess of sales. The oil industry realizes that their markets must be widened in periphery and likewise multiplied in volume. This industry represents over 15 billion dollars in invested capital and has repeatedly demonstrated an ability for acquiring whatever it needs, be it crude, capital or customers.

Oil for home and building heating gained rapidly in popularity a few years ago by offering automatic service at reasonable cost. Natural gas in some sections displayed many oil installations. Poor service through faulty burners and indifferent quality of fuel oil resulted in further losses until the glamor of oil heating was lost from the public eye.

Realizing that the "golden goose" was getting a little pale and wan, oil men studied the symptoms, diagnosed the illness and have been applying corrective remedies in large doses. A house-holder heating with oil today obtains excellent service from the oil companies who now are assuming the job of keeping burners in efficient use. New oil burners showing vast improvements over the earlier models are appearing almost daily. Prices are lower and performance enhanced. Oil companies are sponsoring the sale of burners and the financing of the purchaser's account.

Oil burner sales, according to "Electrical World," for the first nine months of 1930 were 11 per cent ahead of 1929. This means the installation of 101,000 burners and a consumers' expenditure of almost $64,000,000. The number of oil burners in use is estimated in excess of 650,000 and climbing at a rate to double that total in five years. This in effect means a loss to the coal industry of more than $50,000,000 in annual sales.

We have sketched what the oil industry amounts to in the heating field. Earlier in this discussion I mentioned that oil was becoming a contender for the domestic cooking and water heating business. One manufacturer of domestic oil burning appliances tells of 75,000 successful installations of oil burners to convert coal ranges. He claims that $3,500,000 worth of this type of burner alone were sold last year. This manufacturer, with headquarters and plant in this city, has built a remarkable business in oil consuming room heaters, water heaters, garage heaters, steam and hot water boilers and cooking appliances. The public seems to like his sales story.

The next direct competitor is the one with which we are most familiar. Many consider electricity a worthy contender for the domestic and commercial cooking business. There are about one million electric ranges in use. The annual sales are increasing. In 1930 they reached approximately 200,000. The electrical industry, central stations, manufacturers and all that massive sales force are gleefully backing this attractive load-builder. Each range adds considerable brand new revenue and net profit to the electric utilities. The steady and nationwide reduction of electrical rates for cooking are rapidly wiping out the cost differentials between that energy and gas. Service rendered the user has been brought to equal that of gas in every respect, except speed. They claim, however, unusual control features and superior cleanliness.

Electrical water heating during the past 12 months has received a decided impetus through development of "off-peak" heaters and rates. There are at the moment more than 60 off-peak rates on file in various sections which offer current for one cent per kw.hr. and downward to various fractions of a cent. One central station is selling off-peak heaters at such rates and then offers a plan of payment for the appliance which extends over 15 years.

The force of electric influence will be felt as well in the heating field. Electric associations have endorsed and advocated oil heating because electric motors and ignition contribute considerable revenue. For the same reasons they look very kindly upon the coal or coke stokers. Certainly most electric men prefer either modern coal or oil installations to gas for business reasons.

House heating with electricity as the exclusive fuel has developed much further than is generally realized. Again through "off-peak usage" and rates, installations are in use ranging from a few kw.hr. of demand or upward. Warm air, hot water and steam installations have been successfully operated for many years. There are now more than 3,000 complete electrically heated homes on this continent.

As we study our direct competitors in this cursory manner we find much food for thought. We see that we are not the only "duck on the pond." Facing the facts of competition is a useful practice though ego suffers sometimes in the process. Every salesman, however, should know the competitors' goods as well as his own.

Having looked thus briefly into the windows of the electric, coal and the oil man and having roughly estimated his plans for the future we can now proceed to set down a few plans and ideas, as gas men, to meet this competition of today and tomorrow.

Coal in a bin, oil in a tank, electricity in a wire and gas in a pipe are useless. To become of value they must be consumed in appliances. As the leaders of the fuel industries set out to increase the sales of their particular product they realize at once that more apparatus to consume their fuel must be placed in the hands of the ultimate consumers. The composite expectation for tomorrow is therefore that more coal, oil, electric and gas stoves will be sold. The public, remember, is quite unconcerned about all this, for the present stove, water heater and furnace are quite satisfactory to the user. So the first step is that of removing the apparatus now being used and of installing instead new gas appliances.

Here we encounter the second class of competition—the indirect opponent. Under this heading come all trades, arts, guilds and industries who expect to sell something to the public and take in turn their money. When we importune an individual to purchase a gas range, water heater, furnace burner, clothes dryer, incinerator, and so forth, some one is urging that he had better put the money into an automobile, a radio, a trip to Europe, in clothes, education, amusement or the bank. This is the "battle for the dollar"—a new Armageddon with modern speed and resourcefulness.

There are about five billion dollars in gold, silver and paper currency in circulation in this country. The combined estimates of the coal, oil, gas and electric industry predict that the public will purchase two and one-half billion dollars' worth of fuel consuming apparatus during 1931. It would be miraculous for one group in any period of time to gather half of all the available money. Credit and the circulation of money allows each dollar to be used many times. During 1930 the total bank clearings were about 750 billions of dollars or 150 times the number of dollars in the public's hands.

The fact remains, however, that more goods can be produced in this country than the public can pay for. To put it another way, the nation's purchasing ability is less than its producing ability; a fact which accounts for these periodic recessions of buying and hence, production, commonly called depressions. Each step taken to increase the buying ability of individuals is a move towards stabilizing prosperity.

Most appliances will henceforth be purchased from income rather than capital. In preparing, as gas men, our appliance sales programs and budgets, we must first determine how much prospective customers can afford to spend each month for additional gas and towards

paying for the appliances. The amount available has definite limits. Our prices and terms must be adjusted to meet those limits.

I offer as the most important step toward meeting today's competition that of extending to our customers credit facilities under which they can and will buy additional appliances to consume more gas. The old limits as to down payments and length of payment period have palpably outlived their usefulness. Those who could afford to meet those terms have been sold. The next group to be sold requires more credit. Domestic appliances are exceedingly good credit risks. Furthermore, low payments are more readily collectable than high ones. Attractive terms reduce sales resistance and expenses. As you extend additional credit facilities to your customers you are at once developing your own business under sound economics and patriotically increasing their buying capacity and that of the community.

Gas rates which bring gas service within competitive distance of the other fuel services are of vital importance. Few men change to procure better service for more money, but the masses will deal with any one who can deliver better service at less money. For example attempts to sell gas hot water service for $5 when similar service can be bought for $3 will attract but very few customers.

Coal, oil and electricity have considerable and fairly equal possibilities of reducing prices. The surpluses of coal and oil, the "off-peak" hours of electricity, are pretty good indicators that we may expect lower prices from our direct competitors. Gas men will do well to anticipate and emulate such a movement, by revising the schedules of this industry.

The work of studying each local market, of determining what the public will pay for gas and the appliances, is a task for an expert. From these studies and surveys sales programs should be devised and skillfully consummated. Both demand a salesman of training and experience. Salesmen are those who approach with knowledge and instinct the problem of persuading the public to purchase your services.

Good selling has been lamentably absent from many industries. The gas business is a manifest example. The cause is not hard to discover. Most gas companies are directed by men who have learned the plant or accounting side of the business. Making gas in all details has been meticulously set down generations ago. The great problem of marketing gas is still as unchartered and as abysmally blank to many gas men as the Polar seas.

This condition accounts for the woeful lack of understanding that the purpose of the gas business is to sell more and more gas. It likewise explains why so many sales efforts of gas companies smack of the tyro. Sales efforts and ideas have been relegated to minor places and subordinate consideration. The price which will be paid for continuing to ham-string the function of sales will undoubtedly be staggering.

Each sales manager in the gas business, as a duty to his profession and industry, should assume the task of convincing his management of the need for ample funds and latitude for the sales department. Through salesmen who circulate constantly among customers and prospects, knowledge of competition and the market will best be obtained. Representatives who carry direct to the consumer our plans through which more appliances and gas may be purchased will do a better job than the other mediums which are offered. Gas salesmen should at least be as alert and as numerous as those of the competition. Business, like the early worm, has a habit of going to the fellow who goes after it the hardest.

Advertising in all its forms, displays, demonstrations, free trial installations, simplified sales processes, accessible offices, campaigns, quotas, contests, liberal and inspiring compensation need no delineation here. They are fundamental and vital adjuncts of a correct program.

The sale of gas appliances and gas is one job which the industry will have to do itself. No one else is sufficiently concerned to put back of it the money and interest which is needed. There will always be those on the side lines who will offer advice. Life would be great if we could turn to others all the jobs we don't understand and hence, dislike. There are no short cuts, no easy roads. Selling more gas and keeping it sold is one of those tasks which, if it's done right, we will have to do ourselves.

Selling, like public relations, employee education and conventions, will cost money; a fact, which to date many gas men still feel is subject to amendment by Santa Claus. The industry has become accustomed to paying for pipe and plants. It must also pay for business. Capital investments for machinery are common in rates of $3 to $6 per dollar of gross revenue. Sales programs which add to the revenue and protect it from loss are justifiable in similar proportion. One authority claims that henceforth all industry must prepare to spend more in sales efforts. Failure to do so will be doubly expensive through lost revenue and opportunity.

In closing, may I ask your indulgence if these statements appear to have been made with impolitic candor. The situation needs plain statement and warrants the serious consideration of all leaders of industry. Leadership in every commercial field in the next era, will go to those who excel in salesmanship, to those concerns which study the market, make only what they can sell and then hustle early and late for old and new business.

The gas industry in the 115 years of its existence has met many forboding situations. Each crisis has inspired gas men to open new eras of prosperity. Let's meet today's competition in a manner which will be worthy of the industry's traditions and opportunities.

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Several other papers presented before the Mid-West Conference will be published in the A. G. A. MONTHLY at early dates.

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# Home Service Activities

## Second National Home Service Conference

THE Second National Home Service Conference will be held at the Edgewater Beach Hotel in Chicago, March 23, 24, 25 and 26, 1931, jointly sponsored by the Home Service Committee of the American Gas Association and the Home Service Subcommittee of the Women's Committee, National Electric Light Association.

The program of the First National Home Service Conference, held in Chicago last March, covered the problems of organization and operation of Home Service Departments and was attended by about 200 Home Service women and others interested in this activity.

This year's program will be somewhat different. Two days, March 23 and 24, will be devoted to the presentation of material on the use of electricity in the home. One day of the Conference, Wednesday, March 25, will be devoted to discussions dealing with organization and operation of Home Service Departments, either gas or electric.

Thursday, March 26, will be devoted to the presentation of subject matter relating to gas appliances that Home Service women should know in the operation of their departments; in addition, suggested methods in presenting this information to customers. Specialists in these subjects will appear on the program. The subjects will include, among others, "What Home Service Workers Need to Know About Gas," "How to Present this Information to Homemakers" and "Equipment Studies in the Change-over from Manufactured to Natural Gas."

Miss Karen Fladoes, of the Equitable Gas Company, Pittsburgh, Pa., as chairman of the Home Service Committee of the A. G. A., will preside at the program on gas appliances.

A luncheon meeting will take place March 26 at which time the subject," "Developments in the Gas Industry," will be discussed.

## A. G. A. Standards and Seal of Approval

EVERY genuine effort to make it easier for the purchaser of household goods to select intelligently is of interest to home economists, says an editorial in the Journal of Home Economics, February number. In fact, an important aim of the present program of the American Home Economics Association is to make consumers more conscious of the advantages of standards, specifications, labels, and other devices which indicate the quality of the goods, and to encourage their use by manufacturers and dealers. A notable illustration of such a label is the seal of approval granted by the American Gas Association for use on appliances which have passed the rigid tests conducted in its testing laboratory.

* * *

The subject is timely for yet another reason, namely, that the American Home Economics Association last summer accepted the invitation of the American Gas Association to membership on its approval requirements committee. This invitation reflected the desire of the American Gas Association to include users of gas appliances as well as producers and dealers, and similar ones were addressed to and accepted by the Underwriters Laboratories and the American Institute of Architects.

The American Gas Association, in July, presented a formal application to the American Standards Association asking that the American Gas Association Approval Requirements Committee be accepted as a sectional committee of the American Standards Association on Gas Burning Appliances with the American Gas Association as the sole sponsor. This was granted by the Council of the American Standards Association on September 11, 1930.

The project which the American Gas Association wishes to undertake is entitled "Approval and Installation Requirements for Domestic Gas Burning Appliances," and its scope is thus defined:

Establishment of minimum or basic requirements for performance, safe operation, and substantial and durable construction for domestic gas burning appliances; together with laboratory methods of test for determining compliance therewith.

With the project thus carried on as part of the work of the American Standards Association, it will receive wider recognition and the requirements set up are more likely to gain general acceptance. Since they will serve to protect the household purchaser as well as the reliable manufacturer and dealer, the American Home Economics Association welcomes the opportunity to cooperate in their establishment.

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An interesting discussion on "The A. G. A. Seal of Approval, Its Design and Use," appears in this issue of "The A. G. A. Monthly" on pages 102 and 103.

**Use Every Angle of Visual Attack**

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# Gas Appliance and Equipment Developments

### Spiral Welded Pipe

Spiral welded pipe is the latest development in the field of pipe manufacturing. It is manufactured by The American Rolling Mill Company, of Middletown, Ohio.

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### Six New Incinerators

The Pittsburgh Incinerator Co., Pittsburgh, Pa., did considerable research work on its incinerators last year and now announces that it has introduced six new models of portable and wall type incinerators, recently approved by the American Gas Association Testing Laboratory.

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### Aircraft Welding Blowpipe

The Type W-107 Welding Blowpipe has been added to the Prest-O-Weld line by The Linde Air Products Company, 205 East 42nd Street, New York, N. Y., as an improved sheet metal blowpipe to be handled through Prest-O-Weld distributors. While this new blowpipe has been designed primarily for airplane fuselage welding, it is suitable for light welding work of all kinds.

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### Hays Issues Catalog

The Hays Manufacturing Co., Erie, Penna., has recently issued a new catalog showing gas service products.

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### Meter Gauge

An improved water line gauge and marker for wet test meters is announced by the American Meter Company.

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### Concrete Coating

A new method of applying a concrete protective coating has been perfected and is now being marketed by the Conley Plastering Machine Company, of Compton, California. This machine applys a dense concrete coating that is practically impervious to water and affords good protection to the surface coating, because it is possible to control both the mixture of the cement and sand and the amount of water applied to this mixture.

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### Barber-Greene Representatives Meet

Fifty-five representatives of the Barber-Greene Company in the United States and Canada gathered at the company's plant at Aurora, Illinois, last January for their annual sales conference. The meeting took the form of an instruction course with class room lectures and laboratory work.

**Contributions by manufacturers of gas appliances and equipment to this department will be welcomed by The A. G. A. Monthly. On account of space limitations, all announcements of new products, improvements, etc., should be limited to about 100 words. No attempt will be made to describe each product or give details of construction. For such details address the manufacturer direct. Where justified, photographs will be used to illustrate these brief items. All contributions to this department should be addressed to C. W. Berghorn, Secretary, Manufacturer's Section, American Gas Association, 420 Lexington Ave., New York, N. Y.**

### New Circulating Heaters

The Mt. Vernon Furnace & Mfg. Co., Mt. Vernon, Illinois, builders of ranges and circulating heaters, has announced a new line of gas circulating heaters. These gas circulators are built with vitreous enameled jackets or casings which have the appearance of modern radio cabinets. The interior has the efficient tubular construction.

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### New Boiler Nearly Ready

The P. M. Lattner Manufacturing Company, Cedar Rapids, Iowa, is ready to place in production a gas-fired flueless boiler in the 100-lb. class. This boiler is radical in design, and the manufacturers claim it is equal in efficiency to their own tubular boiler. The method of heat transfer has been patented.

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### Novel Presentation Idea

The Estate Stove Company, Hamilton, Ohio, has issued a new consumer resale album in pyramid portfolio form, which is a novel idea of presentation.

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### Tells How to Set Up Dryers

The Judleson Dryer Corporation, Moundsville, W. Va., is distributing blue-prints and instructions for assembling Judleson Clothes Dryers—extension-rack type.

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### Feed Water Units

A new bulletin issued by the Steam and Combustion Company, Chicago, announces a complete line of automatic boiler feed water units. A copy of SteCom bulletin No. 5, describing this equipment, can be had by writing Steam and Combustion Company, 205 W. Wacker Drive, Chicago, Illinois.

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### Cauldron Furnaces and Solution Heaters

Surface Combustion Corporation is inviting requests for a new bulletin, No. 1840-30, on gas-fired Cauldron Furnaces and Solution Heaters.

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### Booklet Describes Tanks

The Riverside Boiler Works, Inc., Cambridge, Mass., have just issued a booklet entitled, "Riverside Tanks Made to Meet the Needs of the American Home." The Riverside Company make a complete line of galvanized and copper tanks, in addition to their All-Copper Packo and Riboco Automatic Storage Systems.

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### Insulating Quilt in New Size

Samuel Cabot, Inc., of Boston, announce that Cabot's Heat Insulating Quilt will hereafter be made in one-inch thickness in addition to the single-ply, double-ply and triple-ply thicknesses in which Cabot's Quilt has, for a long time, been made. The word "Quilt" is the registered trade mark for this product.

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### Increases Sales Organization

William E. Mills, formerly with Glenwood Range Co., is now associated with Barstow Stove Company, of Providence, for sales promotion work in connection with a new Insulated Console gas range equipped with a Top Burner Control.

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### New Type Incinerator

The Teekorator Company, of Rochester, New York, has added a kitchen-fed gas-fired portable incinerator to its line. This unit, known as "AutomaTeek," is located in the basement of new or existing homes, fed from a receiving door in the kitchen, automatically lights itself when filled, and shuts off the gas automatically when burning is completed.

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### Wins Third Banner for Safety Record

Notification of the award of the coveted safety banner to the Brockton Gas Light Co., Brockton, Mass., for the third consecutive month was received by Safety Manager A. D. Matarese on February 12 from officials of the Safety Council. The company was also awarded the banner in October, and November.

According to Mr. Matarese the triple victory was made possible with a record for the month of December of no accidents at all, no accidents of even the most minute nature among 287 employees who did 64,480 hours of work.

## Gas Scores as Best Fuel for Cooking

(Continued from page 115)

with one kind of service I appealed to only one class of trade in my immediate vicinity. With the other two services I gathered in two other classes, and now, with my cafeteria, I draw still another class. This gives me table service, counter service, and soda grill, and, with the cafeteria, self help.

"The statement that I feed every class from truck drivers to millionaires will indicate the extent of this service. Another point is the fact that these services are combined under one roof and only one kitchen and one bakery are required. On the other hand if they had been scattered geographically, or the same service duplicated in various parts of the city, a separate kitchen and bakery would have been necessary, multiplying the costs tremendously.

"Of course I have just as great a diversity in food as in service, as shown by the menus, and it is trite to say that I must maintain the high quality of the food in order to hold my customers.

"In choosing fuel and equipment for the kitchen and bakery I had a number of factors to consider, speed in cooking, uniformity in cooking, results on foods cooked, hazard of interrupted service, cleanliness, flexibility, labor turnover, etc. Now I have been in the business of feeding the public for a good many years and my father for 50 years, and we have both of us used every kind of fuel and energy and we unqualifiedly state that gas scores on all of these factors, besides being the cheapest. The greatest value gas has over all other fuels, including electricity, is speed of utilization.

"Gas will cook faster and better than any other fuel or energy and speed is the greatest factor in serving meals. For instance I have seen the results obtained in reputable laboratories which show that gas will cook from two to three times as fast as electricity, and this is certainly borne out in my own experience. With this speed a superior product is obtained, the mineral juices are sealed in the foods instead of being dissipated, etc. Many a customer has been lost through slow service and many have been won with quick service. The flexibility of the kitchen equipment is apparent from the fact that from an average of 3,500 daily meals, we jumped to 10,000 in a single day.

"Another factor in restaurant management is the size of the payroll, and in dollars and cents this is the most expensive item of all. Now the greatest number of people can be served with the least number of employees only when the highest speed in cooking is attained and gas fuel is the answer to this problem."

Before closing just a word as to cost. Dividing the number of meals served in this establishment into the number of cubic feet of gas consumed, over a period of time (one year) we find that only 5.70 cu.ft. of gas (540 B.t.u.) is used, on the average, in cooking each meal. Applying the popular rate used earlier in this article to make it of general interest, ($.75 per 1,000 cu.ft.,) gives us an average cost for fuel per meal of only .43 of a cent.

## Major Forward Acts for Va. Governor

REPRESENTING the Governor of Virginia, Alexander Forward, managing director of the American Gas Association, on February 19, at a dinner at the Hotel New Yorker, New York, N. Y., accepted from the Greek Minister to the United States, a Greek flag, which was later presented to Governor John Garland Pollard, and subsequently delivered to the American Legion of the Old Dominion.

Last August, 500 members of the American Legion from all States in the Union visited Greece, under the auspices of George Dilboy Post, No. 697, on the occasion of the one hundredth anniversary of Greek independence, for which America rendered service from 1821-1830.

The Legionnaires carried to the Republic of Greece, as a token of the friendship of the people of the United States for the people of Greece, the flags of the forty-eight states, which were presented to the President of the Greek Republic at the Greek Stadium in the presence of 80,000 Athenians.

The Greek Republic in gratitude of the sentiment of the forty-eight governors, delivered to the Legionnaire excursionists forty-eight silk Greek flags, as a token of the friendship of the people of Greece for the people of the United States.

The George Dilboy Post, which represents 60,000 veterans of the Greek Republic who served under the Stars and Stripes in the World War, gave the dinner when Major Forward accepted the flag that was delivered to Virginia.

Formal presentation of the flags to the Governor of New York and other representatives from other States was made by the Greek Minister.

Because of his inability to attend, Governor Pollard designated Major Forward to act in his behalf.


## Are You Wearing the A. G. A. Pin?

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## Book Reviews

"ELEMENTS OF CHEMICAL ENGINEERING." By Walter L. Badger and Warren L. McCabe. 625 pp. 5¾ x 9. Illustrated. Published by McGraw-Hill Book Co. New York. $5.

This is a new book, part of the Chemical Engineering Series sponsored by a very distinguished committee, and it covers the most important unit processes likely to be used by chemical engineers. This book fills a real need, because there are regrettably too few works which are available to chemical engineering students covering the processes which they will later have to employ in their work. In a general way, it is similar to *The Principles of Chemical Engineering*, by Walker, Lewis and McAdams, which appeared in 1923, and which has been for a long time the only work covering this subject from the unit process angle. The authors have acknowledged the fact that this new book covers almost the same field.

However, *Elements of Chemical Engineering* develops the text matter in a much simpler manner, going over the more or less elementary theoretical considerations to the more complicated theory and to the actual practical applications, in a lucid manner so that the student who has had no practical experience can readily visualize theory, process and apparatus.

The book contains seventeen chapters, and appendices, covering among other things the theory and practice of fluid flow and handling, heat and the related operations of evaporation, drying and distillation. The mechanical unit processes used in the chemical industries are treated in an excellent manner, with many illustrations of typical chemical apparatus drawn to bring out the distinctions in the usefulness and the field of application of the various equipment shown.

This book should be valuable not only to students but to chemical engineers who are considering changes and improvements in their equipment, and who wish a useful text to help them in their problems.

—C. G. S.

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"WARM-AIR FURNACE HEATING." By Ara Marcus Daniels. Second Edition. 568 pp. 6 x 9. Illustrated. Published by Edwin A. Scott Pub. Co., New York. $5.

This book, written by a well-known consulting engineer, is a big improvement over the first edition, and carries again the authoritativeness derived from the experience of the author. Important new data have been added which brings this edition up to date. The chapter on gas heating leaves room for some improvement, but the author cannot be strongly criticized on this because there is as yet only a limited amount of information available on the gas warm air heating system.

—C. G. S.

## Gas Companies Invited to Compete for Insull Award

(Continued from page 110)

Class A—Companies having 125,000 or more meters.

Class B—Companies having more than 40,000 and less than 125,000 meters.

Class C—Companies having less than 40,000 meters.

Only one of these classes will be eligible for the award in any given year. The first award will be available only to companies in Class A—those having 125,000 or more meters—and will be for outstanding progress during the three-year period ending 1931. The next annual award will be available only to companies coming within Class B, and the third annual award will be available only to companies within Class C. In subsequent years the award will be rotated in the same order indicated above.

The winning company will receive a handsomely engrossed certificate suitable for mounting in the company's offices as public evidence of its company achievements, and in addition will be entitled to designate three members of its personnel who may attend one of the special courses for business executives such as the course in Public Utility Management and Economics offered during the summer months by the Graduate School of Business Administration, Harvard University, or other courses offered by similar institutions. Those individuals designated by the winning company will be entitled to free tuition and expenses during the period of the course at the institution selected.

All technical, accounting, sales, financial, and general administrative accomplishments which the company considers as having contributed materially to the distinction of the public service rendered should be described in detail.

Because the growth of any public utility depends largely upon the measure of its success in serving the public, one important index of the company's achievements in rendering distinguished public service will be the trend of the company's growth, over and above the natural increase in growth due to the increase of population and the business development of the territory served; and more particularly the degree to which the company is now serving its potential market.

All entries for the award to be made for the three-year period ending with 1931 (Class A companies only) should be filed with the committee not later than April 1, 1932. These documents and inquiries for additional information should be addressed to the Special Committee on the Insull Award for Distinguished Public Service, American Gas Association, 420 Lexington Avenue, New York, N. Y.


# Instructions for Testing and Repairing Gas Meters

■

*Compiled by*
GEORGE A. LANE
and
WILLIAM A. CASTOR

■

PUBLISHED BY

AMERICAN GAS ASSOCIATION

■

*Twenty-five Cents Per Copy*

# Monthly Summary of Gas Company Statistics

## FOR MONTH OF DECEMBER, 1930

Issued February, 1931, by the Statistical Department of the American Gas Association
420 Lexington Avenue, New York, N. Y.

PAUL RYAN, Statistician

### COMPARATIVE STATISTICS OF 144 MANUFACTURED GAS COMPANIES FOR THE MONTH OF DECEMBER, 1930

| | *Month of December.* | | | *Twelve Months Ending December 31* | | |
|---|---|---|---|---|---|---|
| | *1930* | *1929* | *Per cent Increase* | *1930* | *1929* | *Per cent Increase* |
| Customers | 8,842,591 | 8,838,322 | 0.1 | *See December* | | |
| Gas Sales (MCF) | 31,153,000 | 31,785,711 | — 2.0 | 353,832,087 | 354,268,765 | — 0.1 |
| Revenue (Dollars) | 32,759,047 | 33,393,458 | — 1.9 | 376,885,239 | 376,682,611 | 0.1 |
| *Gas Produced and Purchased (MCF)* | | | | | | |
| *Gas Produced* | | | | | | |
| (a) Water Gas | 17,769,912 | 18,304,313 | — 2.9 | 180,466,689 | 189,095,370 | — 4.6 |
| (b) Retort Coal Gas | 2,588,698 | 2,723,259 | — 4.9 | 29,886,395 | 30,927,569 | — 3.4 |
| (c) Oil Gas | 828,409 | 781,042 | 6.1 | 7,803,728 | 7,811,896 | — 0.1 |
| (d) Coke Oven Gas | 4,435,903 | 4,027,582 | 10.1 | 49,158,463 | 46,383,034 | 6.0 |
| (e) Reformed Oil Still Gas | 308,805 | 169,250 | — | 2,204,758 | 600,363 | — |
| (f) Total Gas Produced | 25,931,727 | 26,005,446 | — 0.3 | 269,520,033 | 274,818,232 | — 1.9 |
| *Gas Purchased* | | | | | | |
| (a) Coke Oven Gas | 9,898,071 | 10,042,146 | — 1.4 | 111,457,223 | 107,439,707 | 3.7 |
| (b) Oil Still and Natural Gas | 441,242 | 289,138 | 52.6 | 3,127,147 | 3,008,186 | 4.0 |
| (c) Total Gas Purchased | 10,339,313 | 10,331,284 | 0.1 | 114,584,370 | 110,447,893 | 3.7 |
| Total Gas Produced and Purchased | 36,271,040 | 36,336,730 | — 0.2 | 384,104,403 | 385,266,125 | — 0.3 |

### COMPARATIVE STATISTICS OF 152 NATURAL GAS COMPANIES FOR MONTH OF DECEMBER, 1930

| | | | | | | |
|---|---|---|---|---|---|---|
| *Customers* | | | | | | |
| Domestic (Including House Heating) | 4,082,161 | 4,053,019 | 0.7 | | | |
| Commercial | 183,378 | 178,530 | 2.7 | | | |
| Industrial | 13,626 | 13,483 | 1.1 | *See December* | | |
| Main Line Industrial | 3,848 | 3,194 | 20.5 | | | |
| Miscellaneous | 2,303 | 1,466 | — | | | |
| Total | 4,285,316 | 4,249,692 | 0.8 | | | |
| *Gas Sales (MCF)* | | | | | | |
| Domestic (Including House Heating) | 30,020,094 | 32,569,633 | — 7.8 | 262,189,695 | 267,220,352 | — 1.9 |
| Commercial | 3,640,362 | 3,788,108 | — 3.9 | 30,714,310 | 31,321,994 | — 1.9 |
| Industrial | 15,175,219 | 18,892,424 | —19.7 | 198,822,080 | 215,849,204 | — 7.9 |
| Main Line Industrial | 6,017,381 | 6,258,378 | — 3.9 | 75,170,415 | 59,733,826 | 25.8 |
| Miscellaneous | 339,065 | 735,432 | — | 5,485,357 | 6,323,185 | — |
| Total | 55,192,121 | 62,243,975 | —11.3 | 572,381,857 | 580,448,561 | — 1.4 |
| *Revenue (Dollars)* | | | | | | |
| Domestic (Including House Heating) | 19,911,586 | 21,247,613 | — 6.3 | 181,507,203 | 182,916,793 | — 0.8 |
| Commercial | 1,884,991 | 2,041,531 | — 7.7 | 17,069,227 | 17,526,609 | — 2.6 |
| Industrial | 3,705,814 | 4,517,486 | —18.0 | 48,306,366 | 54,390,425 | —11.2 |
| Main Line Industrial | 825,423 | 765,657 | 7.8 | 10,032,178 | 7,918,010 | 26.7 |
| Miscellaneous | 81,957 | 147,761 | — | 1,294,126 | 1,544,238 | — |
| Total | 26,409,771 | 28,720,048 | — 8.0 | 258,209,100 | 264,296,075 | — 2.3 |
| *Gas Produced and Purchased (MCF)* | | | | | | |
| Natural Gas Produced | 21,369,336 | 25,143,409 | —15.0 | 234,287,972 | 242,760,261 | — 3.5 |
| Natural Gas Purchased | 77,045,872 | 76,735,292 | 0.4 | 724,875,063 | 675,165,484 | 7.4 |
| Natural Gas Produced and Purchased | 98,415,208 | 101,878,701 | — 3.4 | 959,163,035, | 917,925,745 | 4.5 |
| Manufactured Gas Produced and Purchased | 2,238,783 | 3,973,945 | —43.7 | 22,905,576 | 43,102,789 | —46.9 |
| Total Gas Produced and Purchased | 100,653,991 | 105,852,646 | — 4.9 | 982,068,611 | 961,028,534 | 2.2 |
| Company Use and Sales to other Gas Companies | 38,387,295 | 39,238,134 | — 2.2 | 362,980,075 | 336,555,889 | 7.8 |
| Net Available for Public Distribution | 62,266,696 | 66,614,512 | — 6.5 | 619,088,536 | 624,472,645 | — 0.9 |

# Gas Utility Sales Show Slight Decrease in 1930

A SLIGHT decrease in gas utility sales for the twelve months ending December 31 is indicated by the comparative operating reports of manufactured and natural gas utilities to the Statistical Department of the American Gas Association.

Reports from companies representing over 90 per cent of the manufactured gas industry indicate sales of 353,832,087,000 cubic feet during 1930, as compared with 354,268,765,000 cubic feet during the year previous, a decline of one-tenth of one per cent. The revenues of these companies totalled $376,885,239 for the year, as compared with $376,682,611 during 1929.

The declining trend in water gas production continued during 1930, production averaging nearly 5 per cent under the previous year. The quantities of coke oven gas produced and purchased, however, increased 4.4 per cent.

Natural gas companies representing more than 85 per cent of the public utility distribution of natural gas report sales for the year in excess of 572,000,000,000 cu.ft., a decrease of 1.4 per cent from the year 1929. The revenues of these companies aggregated $258,209,100 during 1930, compared with $264,296,075 during the preceding year.

For comparison with other fuels, the production of bituminous coal during 1930 declined by nearly 14 per cent from the preceding year, anthracite coal production dropped more than 5 per cent, crude petroleum output was down 11 per cent, coke production down nearly 15 per cent, while the production of electric power declined by 1.8 per cent.

In response to the generally depressed condition of trade and business natural gas sales for industrial purposes declined by nearly 8 per cent, but the major portion of this loss was offset by the industry's program of expansion into new territory where gas service was not previously available.

While final figures covering the entire production and consumption of natural gas during the year are not yet available, preliminary estimates indicate that production aggregated more than 1,940,000,000,000 cu.ft., an increase of 1.1 per cent over the year 1929.

## GROUP A—NEW ENGLAND STATES

*(Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont)*

(Data reported by 32 companies whose sales constitute 83% of the total sales of manufactured gas in the New England States)

| | *Month of December.* | | | *Twelve Months Ending December 31* | | |
|---|---|---|---|---|---|---|
| | *1930* | *1929* | *Per cent Increase* | *1930* | *1929* | *Per cent Increase* |
| *Customers* | | | | | | |
| Domestic | 981,409 | 989,790 | — 0.8 | | | |
| House Heating | 6,020 | 5,276 | 14.1 | | | |
| Industrial and Commercial | 33,233 | 32,319 | 2.8 | | | |
| Miscellaneous | 421 | 318 | — | *See December* | | |
| Total (31 companies which segregate) | 1,021,083 | 1,027,703 | — 0.6 | | | |
| Grand Total (32 companies) | 1,054,535 | 1,061,516 | — 0.7 | | | |
| *Gas Sales (MCF)* | | | | | | |
| Domestic | 2,032,796 | 2,026,120 | 0.3 | 25,456,609 | 24,719,186 | 3.0 |
| House Heating | 460,508 | 447,296 | 3.0 | 2,883,869 | 2,282,796 | 26.3 |
| Industrial and Commercial | 521,939 | 525,332 | — 0.6 | 5,998,906 | 6,441,791 | — 6.9 |
| Miscellaneous | 32,354 | 33,081 | — | 294,066 | 297,890 | — |
| Total (31 companies which segregate) | 3,047,597 | 3,031,829 | 0.5 | 34,633,450 | 33,741,663 | 2.6 |
| Grand Total (32 companies) | 3,136,558 | 3,125,877 | 0.3 | 35,665,097 | 34,753,647 | 2.6 |
| *Revenue (Dollars)* | | | | | | |
| Domestic | 2,634,491 | 2,631,119 | 0.1 | 33,075,544 | 32,104,769 | 3.0 |
| House Heating | 374,906 | 362,114 | 3.5 | 2,373,427 | 1,853,011 | 28.1 |
| Industrial and Commercial | 493,122 | 494,476 | — 0.3 | 5,668,831 | 6,351,041 | —10.7 |
| Miscellaneous | 19,414 | 20,167 | — | 198,571 | 231,279 | — |
| Total (31 companies which segregate) | 3,521,933 | 3,507,876 | 0.4 | 41,316,373 | 40,540,100 | 1.9 |
| Grand Total (32 companies) | 3,621,960 | 3,610,557 | 0.3 | 42,480,541 | 41,690,929 | 1.9 |
| *Gas Produced and Purchased (MCF)* | | | | | | |
| *Gas Produced* | | | | | | |
| (a) Water Gas | 1,146,187 | 1,724,241 | —33.5 | 15,889,388 | 16,559,656 | — 4.0 |
| (b) Retort Coal Gas | 752,005 | 706,190 | 6.5 | 7,816,324 | 7,640,928 | 2.3 |
| (c) Coke Oven Gas | 371,421 | 294,149 | 26.3 | 4,118,219 | 3,598,568 | 14.4 |
| (d) Other Gas | 1,185 | — | — | 5,157 | — | — |
| (e) Total Gas Produced | 2,270,798 | 2,724,580 | —16.7 | 27,829,088 | 27,799,152 | 0.1 |
| Coke Oven Gas Purchased | 1,642,075 | 877,349 | 87.2 | 12,335,882 | 10,307,396 | 19.7 |
| Total Gas Produced and Purchased | 3,912,873 | 3,601,929 | 8.6 | 40,164,970 | 38,106,548 | 5.4 |

NOTE: Of the thirty-two companies reporting, thirty-one segregate customers, sales and revenue monthly, and one company reports only totals. The data shown above for domestic, house heating industrial-commercial classifications are based only on the reports of the thirty-one companies which segregate returns.

# Associations Affiliated with A. G. A.

**Canadian Gas Association**
Pres.—A. T. Leavitt, Hamilton By-Product Coke Ovens, Ltd., Hamilton, Ont.
Sec.-Tr.—G. W. Allen, 21 Astley Avenue, Toronto.

**Empire State Gas and Electric Association**
Pres.—William J. Welsh, New York & Richmond Gas Co., Staten Island, New York.
Chairman Gas Section—M. F. Clement, Rockland Light & Power Co., Middletown, Ind.
Sec.—C. H. B. Chapin, Grand Central Terminal, New York, N. Y.

**Illinois Gas Association**
Pres.—H. T. East, Public Service Company of Northern Illinois, Chicago, Ill.
Sec.-Tr.—George Schwaner, 305 Illinois Mine Workers Bldg., Springfield, Ill.

**Indiana Gas Association**
Pres.—T. L. Kemp, Indiana Consumers Gas & By-Product Co., Terre Haute, Ind.
Sec.-Tr.—P. A. McLeod, Northern Indiana Power Co., Huntington, Ind.

**Michigan Gas Association**
Pres.—Prof. A. H. White, University of Michigan, Ann Arbor, Mich.
Sec.-Tr.—A. G. Schroeder, Grand Rapids Gas Light Co., Grand Rapids, Mich.

**Maryland Utilities Association**
Pres.—R. E. Town, Frederick, Md.
Sec.—D. E. Kinnear, 803 Court Square Bldg., Baltimore, Md.

**Mid-West Gas Association**
Pres.—J. M. Drabelle, Iowa Ry. & Lt. Corp., Cedar Rapids, Iowa.
Sec.-Tr.—Roy B. Searing, Sioux City Gas & Electric Co., Sioux City, Iowa.

**Missouri Association of Public Utilities**
Pres.—H. M. Patton, Union Electric Light & Power Co., St. Louis, Mo.
Sec.-Tr.—F. D. Beardslee, 315 N. 12th St., St. Louis, Mo.
Asst. Sec.—Jesse Blythe, 103 West High St., Jefferson City, Mo.

**New England Gas Association**
Pres.—M. B. Webber, Arlington Gas Light Co., Arlington, Mass.
Exec. Sec.—C. D. Williams, 41 Mount Vernon St., Boston, Mass.
Chairman Operating Div.—F. M. Goodwin, Boston Consolidated Gas Co., Boston, Mass.
Sec. Operating Div.—P. R. Buchanan, Hartford Gas Company, Hartford, Conn.
Chairman Sales Div.—J. J. McKearin, Lowell Gas Light Co., Lowell, Mass.
Sec.-Tr. Sales Div.—R. H. Patterson, Arlington Gas Light Co., Arlington, Mass.
Chairman Industrial Div.—Chas. H. O'Donnell, Boston Consolidated Gas Co., Boston, Mass.
Sec.-Tr. Industrial Div.—H. J. Brehme, Vermont Lighting Corp., Springfield, Vt.
Chairman Acctg. Div.—C. N. Alexander, C. H. Tenney & Co., Boston, Mass.
Sec.-Tr. Acctg. Div.—Otto Price, Boston, Mass.
Chairman Manufacturer Div.—A. M. Slattery, The Hoffman Heater Co., Boston, Mass.
Sec.-Tr. Manufacturers Div.—J. H. McPherson, Clow Gasteam Heating Co., Boston, Mass.

**New Jersey Gas Association**
Pres.—Chester Grey, Atlantic City Gas Company, Atlantic City, N. J.
Sec.-Tr.—H. E. Cliff, Public Service Electric & Gas Co., Newark, N. J.

**Ohio Gas and Oil Men's Association**
Pres.—L. K. Langdon, Union Gas & Electric Co., Cincinnati, Ohio.
Sec.-Tr.—Wm. H. Thompson, 811 First National Bank Bldg., Columbus, Ohio.

**Oklahoma Utilities Association**
Pres.—T. H. Steffens, Sand Springs Railway Co., Sand Springs, Okla.
Mgr.—E. F. McKay, 1020 Petroleum Bldg., Oklahoma City, Okla.

**Pacific Coast Gas Association**
Pres.—R. E. Fisher, Pacific Gas & Electric Co., San Francisco, Calif.
Mang. Dir.—Clifford Johnstone, 447 Sutter St., San Francisco, Calif.

**Pennsylvania Gas Association**
Pres.—E. G. Boyer, Philadelphia Electric Co., Philadelphia, Pa.
Sec.-Tr.—Frank W. Lesley, Pennsylvania Gas & Electric Co., York, Pa.

**Pennsylvania Natural Gas Men's Association**
Pres.—George E. Welker, United Natural Gas Co., Oil City, Pa.
Sec.-Tr.—B. H. Smyers, Jr., 435 Sixth Ave., Pittsburgh, Pa.

**Southern Gas Association**
Pres.—A. J. Goss, Chattanooga Gas Co., Chattanooga, Tenn.
Sec.-Tr.—G. H. Schlatter, Birmingham Gas Co., Birmingham, Ala.

**Southwestern Public Service Association**
Pres.—Knox Lee, Southwestern Gas & Electric Co., Marshall, Texas.
Chairman Gas Section—Frank L. Chase, Lone Star Gas Co., Dallas, Texas.
Sec.—E. N. Willis, c/o University Club, Dallas, Texas.

**The Public Utilities Association of Virginia**
Pres.—T. Justin Moore, Va. Elec. & Power Co., Richmond, Va.

**Wisconsin Utilities Association**
Pres.—M. H. Frank, Wisconsin Power & Light Co., Madison, Wis.
Exec. Sec.—J. N. Cadby, 135 West Wells St., Milwaukee, Wis.

Thirteenth Annual Convention of the American Gas Association
Atlantic City, N. J. - - - October 12-16, 1931

# Employment Bureau

## SERVICES OFFERED

**Manager-Superintendent.** Twelve years' experience as superintendent of water gas production and general manager; experienced in safety supervision and public relations work; desires position requiring some or all of above experience; age 35; married; technical graduate; prefer southern location; will consider foreign assignment. **377.**

**Executive** with public utility experience qualified to specialize on rate analysis, electric or gas, desires engagement. **378.**

**Manager** of gas properties. Twenty years' experience in all phases of the gas industry; comprehensive knowledge of manufacturing, transmission and distribution, with engineering, designing and construction of properties. Good at gaining and holding proper public relations, getting new business and in merchandising. **379.**

Graduate **engineer**—experienced in design, construction and operation of transmission lines, medium- and low-pressure distribution plants, in both manufactured and natural gas; desires position with operating or engineering company. **381.**

**Manager** and engineer, technically sound, well educated with unusually varied experience of twenty years, thorough understanding of economics of different processes including Reforming of Natural Gas and Oil Gas, By-Product Utilization, Raw Materials and Unit Costs. Accustomed to planning and carrying out improvements, high- and low-pressure distribution layout. **383.**

**Gas engineer,** M.E. degree. Many years' experience in construction and operation; engineer of production and engineer of distribution of large companies, water gas, coal gas; sale of by-products, appraisals; estimates, budgets, designing, and natural gas conversion. **384.**

**Gas engineer** (33) M.E., experienced in operation, maintenance, and construction of gas plants, water gas, coal gas, Koppers ovens, and producers. General business experience and accounting. **385.**

**Combustion engineer** (M.S.) long training and experience with industrial gas applications. Familiar with natural and the various manufactured gases and their practical ratings. Can organize and direct fuel economics for large industrial consumers. Able to promote and direct practical testing and development to extend the use of gas in new fields of application. **386.**

Experienced industrial gas **sales engineer** with excellent sales, technical and educational background, desires position as executive with utility or manufacturer where seasoned personality, initiative, and ability to handle men will be appreciated. **387.**

**Manufacturer's representative,** New York territory, gas water heaters, space heaters or similar lines wanted. **388.**

**Gas engineer,** superintendent or assistant general manager (45) holding a technical degree, member A.S.C.E., familiar with all phases of the gas industry, including the public and the rate problem, is open for engagement. Applicant is willing to go anywhere his training and experience can be of use. **389.**

**Factory representative** with manufacturer of gas burning equipment. Ten years' experience in appointing dealers developing territory, etc.; five years' experience in the oil burning industry. Salary and expenses, or commission basis with drawing account. **390.**

**Sales Manager** or industrial gas engineer for Latin American property. Specialist in commercial and industrial installations, refrigeration, large water heating, large volume cooking. Speaks English and Spanish fluently. Fifteen years' managing personnel of various nationalities. **391.**

**Fuel engineer** (M.S.) eight years' experience in industrial field, familiar with any kind of fuel and its application, desires position as manager of Industrial Department or responsible position with equipment manufacturer. Good organizer with strong background of diversified industrial research. Married and now employed. **392.**

## SERVICES OFFERED

**Manager-Superintendent,** experienced in construction and operation of coal gas, water gas, and coke-oven plants. Also familiar with distribution problems. Employed at present by holding company as Assistant District Manager. Graduate engineer with background of practical experience. Best of references. **393.**

Over twenty years' training and experience with one public utility company in all angles of the gas industry; have been constructing and operating **engineer** on plant and distribution work, sales manager, advertising and publicity manager and successful at employee and public relations. **394.**

Operating **Executive,** manufactured and natural gas experience; organization; engineering, sales and rates. Keen on creating new uses to improve volume and load factor of send-out. **395.**

**Rate engineer;** engineering graduate with accounting training and several years' experience in rate work, covering rates for manufactured, by-product and natural gas service with Public Service Commission. Thoroughly experienced in making budgets, cost analyses, rate studies, designing rates and similar work. **396.**

**Engineer-Manager,** experienced in all branches of gas operations, construction, production, distribution, high- and low-pressure coal or water gas, management of plant up to 20,000 meters or chain of small plants, available on short notice, good record. **397.**

**Gas Engineer,** technically educated and having over 20 years' practical experience in the gas business, is open for any position where an exceptional knowledge of the design, construction and operation of both manufactured and natural gas properties is required. Experience includes transmission, distribution and utilization. **398.**

**Executive** of proven ability with 17 years' experience in all phases of natural gas business desires position in executive capacity with property in stages of construction or in operation. Can give satisfactory references. **399.**

Young practical **engineer** to assist in the manufacturing of gas appliances and act as factory representative. New England territory desired. **400.**

**Superintendent** with 23 years' practical experience in the production and distribution of manufactured gas desires position with managerial responsibility in small property. **401.**

**Engineer** (33) college graduate. Thirteen years' experience in combustion engineering, both industrial and house heating line. Worked on the development, design, laboratory testing and installation and service of two of the leading Gas Conversion Burners for house heating. Desires position with manufacturing company or gas company. Location around Cleveland preferred, but will consider other locations. **402.**

Connection desired with manufacturer of house and hot water heating equipment or gas company, by energetic, highly trained **engineer,** having successful record of achievement in designing, development, manufacturing, testing and research of heating equipment, controls, etc., specialized in manufactured, natural, mixed and bottled gas. Familiar with design and installation of competitive products, possesses valuable connections with architects and industrialists. Six years' association with leading heating company. **403.**

**Salesman,** sales manager or assistant. Married (36). Thoroughly familiar with dealer trade in Ohio, plenty of experience in utility contact and territorial management. Eight years with present company. **404.**

## POSITIONS OPEN

Young **graduate** in physics, of recognized university, with considerable training in sound and acoustics for research work. Salary to start about $150 per month. **0200.**

**Superintendent** competent to operate an oil gas plant (for Mexico). Send full details of training and experience. Knowledge of Latin language desirable but not necessarily essential. **0201.**

**Assistant Superintendent** of large gas plant. Age between 27 and 35. Should have had at least five years' operating experience in gas manufacturing. Please state age, education, experience, and salary desired. **0202.**

**Assistant sales manager** wanted by gas boiler manufacturer. State qualifications, age, salary desired and when available. **0203.**

Active and aggressive man with initiative, for rapid development into **district manager;** must have technical education, at least five years' experience in water gas production and distribution but preferably ten. Salary about $4,000 to start. **0204.**

Experienced gas appliance **salesman** for small manufactured gas plant in East. Salary $75 per month and 10% commission. **0205.**

**Industrial gas engineer** seeking a change and interested in location offering good opportunity for advancement may communicate confidentially with **0206.**

Leading manufacturer wants man with expert manufacturing knowledge on pressed steel and grey iron construction. Must have successful record and experience on **gas range construction** with ability to take complete charge. Wonderful opportunity for the man who qualifies. State salary earned in the past and give complete detailed information as to experience. **0207.**

**Salesman** for gas range manufacturer to cover Metropolitan district; want a high class, hard-working producer. Remuneration preferably straight commission basis; would consider drawing account against commission to the right man. **0208.**

**Distribution engineers** who can sell. Old established and reliable organization wants two or three technically trained men (30 to 40 years) experienced in transmission and distribution of oil and gas for work involving considerable traveling. **0209**

### LET US HELP YOU FIND THE MAN YOU WANT

The American Gas Association is equipped to place gas company executives, manufacturers of equipment and others, in touch with competent and experienced personnel by means of advertisements on this page under (1) *Services Offered* and (2) *Positions Open.* Attention is invited to the splendid opportunity presented for making contact via the medium of an advertisement, without charge, handled in extreme confidence, which regularly reaches the hands of all members of the Association. In addition, an up-to-date and carefully classified record is maintained which lists the educational and professional records of executives, operators, salesmen and others interested in making a change.

Closing date for copy to insure insertion in the next issue is the seventh of the month.

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